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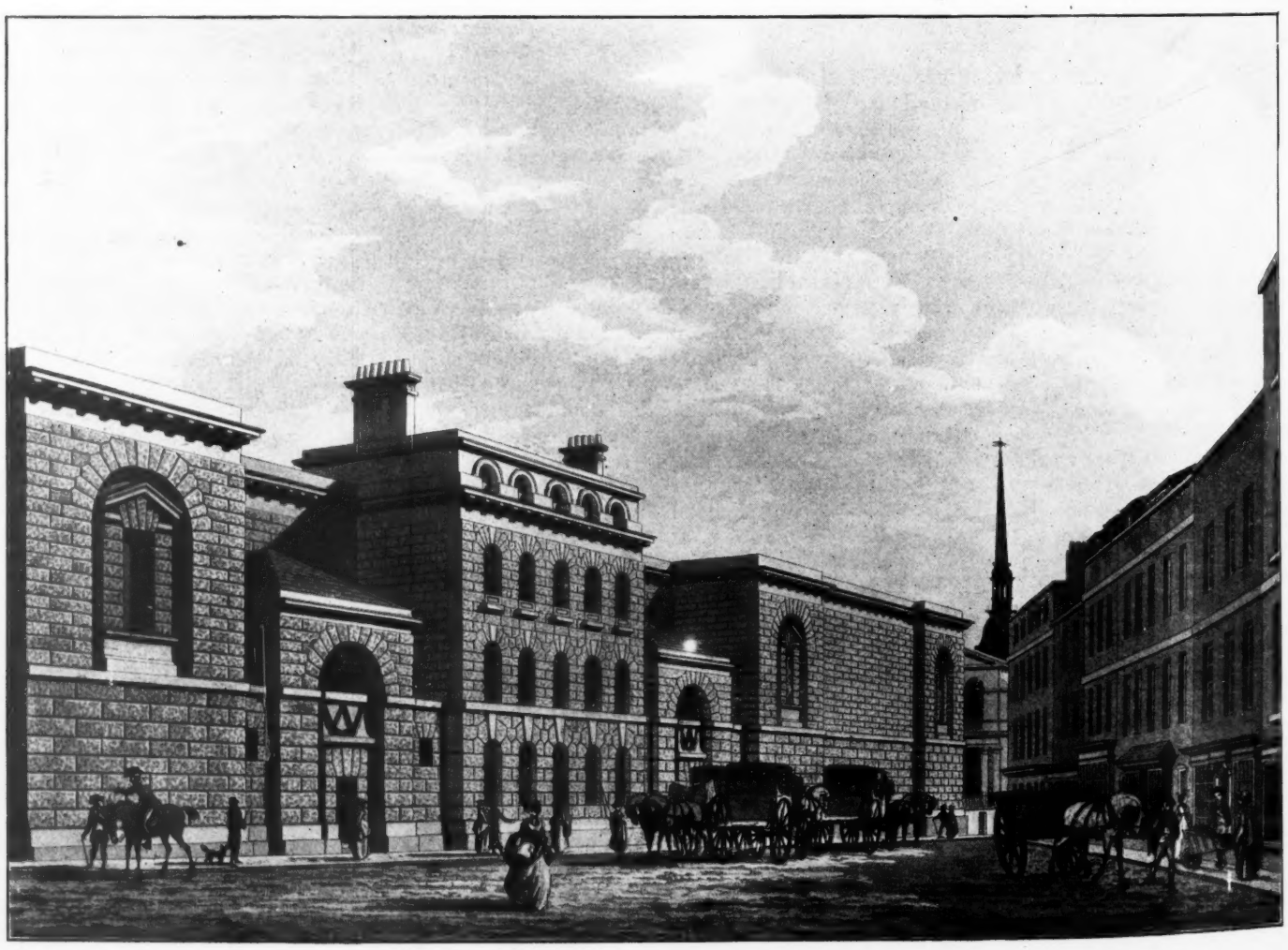
THE INDIVIDUALITY OF BRITISH ART.

IT is an obvious kind of thing to say that nations, like persons, possess a quality of individuality which differentiates them from other nations. As no person individually is quite like another person, so no race of persons which constitutes a nation is quite like any other race of persons. And just as the thought and temperament of races are modified by ethnographical and other conditions, so that mixed races living under the same conditions come in course of time to assume the same features, so are persons individually influenced by their environment and circumstances to the same modes of thought and the same type of creative effort. The comparison might be extended much further. What one calls a national spirit is not nowadays perhaps so much a race spirit, not the spirit of heritage and blood, as it is a sentiment engendered by aggregation, by groups of persons coming together within a certain geographical area, and being bound together by common ties of defence and commercial interests. Take, for example, the Republic of the United States of America, or our own United Kingdom of Great Britain and Ireland, in which the populations are composed of mixed races. The same various conditions do not operate so largely in the Latin, Teutonic, and Slav countries. We do not know how far it may be true, but we believe it to be susceptible of proof that if you transpose a Southerner to the North, or *vice versâ*, he and his descendants will in course of time develop the characteristics and temperament which are called racial tendencies prevailing in his adopted country. On the face of it, therefore, it would appear that what one calls national spirit is largely the result of an ethnographical accident, and provides small occasion for the vainglorious manifestations in which it is at times expressed in all countries. However this may be, it is certain that geographical limitations distinguish groups of people from other groups, endow them with an individual physiognomy, and create very powerful national antagonisms. It is the purpose of the gentler and wiser spirits of all nations to arrest these antagonisms and to do away with them as far as possible. But, although these gentler and wiser spirits may help to modify national jealousies and hatreds, we doubt if they will ever be successful in obliterating the characteristics which distinguish one nation from another until the sun shines, the wind blows, and snow and rain fall impartially on the children of the earth. We daresay, if we could discover the actions of Providence, that the arrival of the millennium is largely a climatic affair. As it is, we incline to the belief that it is no more possible for a nation to change the characteristics which it inherits from its position on the earth's surface than for a leopard to change its spots. And for our part we could not wish it. If the nations of the world were all alike the game of life would be much less absorbing than it is. The spirit of nationality may often enough find expression after a crude and disturbing fashion, but it is none the less interesting for that. We like to know that France is France, Germany Germany, Italy Italy, and so on; and perhaps more especially that Great Britain is Great Britain. But there are those amongst us who believe that the leopard can change its spots, or who would at any rate encourage John Bull to become a modified foreigner.

And pray let us say at once that, notwithstanding certain movements which have been in the air lately, and with which we have a good deal of sympathy—certain attempts to bring the atmosphere of Paris over the Channel—we have not the smallest doubt that they will have any ultimate effect on our characteristic way of doing things. On ethnological grounds alone it is perhaps impossible. In the case to which we refer this must be obvious to anyone who knows his Paris and London. Difference of climate, conditions, race, tradition have all to be reckoned with. But if we leave atmosphere out of the question, because its introduction into so important a matter is trivial and absurd, we are told that the French system of training inculcates educational principles to which we are strangers. We have nothing to say against that, except that the fundamental principles which the French teach were established in ancient Greece and Rome, and are not the property of the thought or system of any particular country. Nations may elaborate systems of teaching, but fundamental principles are the common heritage of all thinking people quite irrespective of race or nationality. We do not wish to tread on dangerous ground or take sides in a discussion which suggests many issues at the present moment, beyond saying that even so far as mere systems are concerned the geographical entity known as Great Britain has its own way of muddling through, and that that way is not the way of the French, with their clear, incisive methods of thought. Perspicuity is always an admirable quality in its way, but the desire for it which is inherent in the French and not in ourselves has placed its art and literature under limitations which the British race has at times and with advantage transcended. We may, no doubt, have something to learn from the French system of architectural education, just as we might have something to learn from the architectural education of Germany; but *tel fruit, tel arbre*, and the present architecture of France is the fruit of her educational system. We leave it to our readers to say whether such buildings as the railway-station on the Quai d'Orsay or the Grand Palais des Beaux-Arts in the Champs Elysées—and we acknowledge and admire the architectural quality of both these buildings—would be appropriate in the atmosphere of London, or would in any way be as representative of the typical spirit of London as they certainly are of Paris. France has, in fact, become the victim of her systems. There are French politicians who will tell you that the progress of the nation will never reach anything like its full development until a good many of the systems which guide and control the energy of the country are cleared away and personal initiative allowed freer scope. We might indeed conclude, if we did not know better, from the arguments of some of our friends that there was no modern architecture worth the name outside France, and it is certainly true that Paris has provided the architectural model for the development of many large cities beyond its borders, when they might with greater advantage have found sources of inspiration nearer home—in their native work, for instance. French art itself is assertively national, essentially an idiosyncratic expression, and we admire the artists of France because of their faith in the art of their country and in themselves. But our interest and admiration in these particulars should not lead us astray; they should rather encourage us to examine what there is in our own artistic heritage.

Notwithstanding the common imputation that the inhabitants of these islands are a singularly self-satisfied race, they carry modesty at times to the pitch of intellectual weakness in the depreciation of the art of their own country. We have often

enough heard it stated that, compared with other countries, we possess little art of any importance. Always, with the exception of Italy at the time of the Renaissance, this view is not only demonstrably false, it is absurd. It is so absurd that it is scarcely necessary to recapitulate names and works which appear in the history of British art. We imagine that the inculcation of views of this kind is calculated to hold to some extent our artistic development in check. We have had our bad artistic periods, like every other country; but without faith, a strong and dominant faith, not only in the artistic possibilities of our race, but in the past productions of our own artists, we are likely to hang on the skirts of a sort of Continental eclecticism for a period much beyond its natural limit. The French possess this kind of faith; the early Italians possessed it, in some cases almost to a bombastic extent; modern Germany is acquiring it, and Hungary is beginning to proclaim it. If it were true that our artistic achievement falls short of that of other countries, it would provide the better grounds for trying to discover the qualities existing in ourselves susceptible of artistic development; but not in the spirit of self-conscious dilettantism in which a certain type of men who might make very good critics or reasonable clients have in recent years turned their thoughts to creative work in design with disastrous results; but with the object of encouraging those in whom the creative gift has come as an instinct. Such men are not difficult to distinguish. And, so far as our national artistic heritage is concerned, what have we to be ashamed of? Have we not, on the contrary, a good deal to count upon? Would it not be better to turn our eyes inwards, as it were, a little more frequently, and to ask ourselves before seeking to assimilate a ready-made system from other nations if we have not the materials for the making of a very good system in our own? It is certainly to some extent true that as a nation we have been deplorably ignorant of a mass of our own achievement. Before the publication of the illustrated works of Mr. Blomfield, Mr. Gotch, Messrs. Belcher and Macartney, and Messrs. Garner and Stratton, the wealth and variety of our domestic architecture was largely a closed book. The photographs which have for some years appeared from week to week in a contemporary have revealed the fact that we possess a body of work of a type and character which are essentially idiosyncratic, which have no counterpart in any other country. Again, we understand that Mr. Batsford is about to publish a volume on another phase of our national architecture, illustrating the work of the beginning of last century, which will probably not be less informing than the books we have already referred to. Where, then, are the grounds for the depreciation or the ignoring of our national achievement in architecture? Wherefore should it be desired to establish an alien tradition on a ground which already possesses a respectable tradition of its own? For an illustration of the underlying principles of all good architecture it may be necessary to turn to Greece and Rome; but the study of classic work is not likely to place any fetters on the free development of a national spirit; it is more likely to emancipate, direct, and purify it. The finest architectural work in this country has probably been achieved by the architects who have most closely studied the best work of other countries; but this close and personal study is a very different thing from the assimilation of organised theories which might tend—we do not say that they will—to the production of architecture after a common pattern which does not spring from native but outside sources, an unwholesome diet surely at the best. In the past the architecture of countries and cities has assumed a distinguishing physiognomy which gives them for us to-day their greatest charm and interest. We say it with some trepidation, in view of modern tendencies, but for us there is infinitely greater interest in a town or city which possesses this personal and individual aspect than in many of the modern aggregations of streets and houses built after a more cosmopolitan pattern. We may be thankful perhaps for this reason that the unification of Italy has been a comparatively recent affair, else might not have been lost to us the characteristics which distinguish its cities built by people of the same race but separated by local and antagonistic states, and which give them the qualities of a separate and individual artistic interest? In art, as in political matters, it is necessary for a nation to work out its destiny in its own way if it is to follow a natural and useful development. Facile assimilation or imitation of the methods of another country, whether of institutions or of art, will not serve the same purpose as the hard thinking which would be entailed



Newgate, from an aquatint by Thomas Malton.

in a more personal and independent solution of the problems which lie in the track of both. The British nation possesses an artistic tradition, which, various as it may be, is eminently personal, and which at times has had greater moments than any other country. Hitherto in architecture it has often derived inspiration from the buildings of other countries and moulded it after its own fashion. It may do so again; it probably will. The purpose of our remarks is, however, to sound a note of warning in regard to finding a quick solution of our own difficulties by the easy method of adopting that of another country. If the architecture of any country ceases to be a national expression, it largely ceases to be interesting. And the problems which architects of all countries have to face to-day in the practice of their art are probably greater than those of any preceding period, without exception, in architectural history.

We are prepared to welcome the study of educational systems from whatever source they may be derived; we are in sympathy, for instance, with the introduction of the atelier into our own curriculum—but let us stop at the system!

NOTES.

Office of Works Competition.

THERE are many evils in the architectural profession, and those who strive in the interests of art are constantly washed in their own bitter tears. We hear on all sides that in the Office of Works Competition the subject to be solved, already difficult enough, has been rendered more difficult still by the answers to queries, which lay down arbitrary conditions of a character which render the competitor's burden an unusually heavy one. It is said that the hand of the three distinguished assessors is not clearly seen in the replies to queries, which rather suggests that some hide-bound official of a hard and unsympathetic nature has been allowed free licence to harry and distress the labourers in the vineyard. We have not yet looked into the points raised, and must be taken as recording what we have heard, but we hope in a subsequent issue to deal with the facts of the case. In any case we shall not be held to be using exaggerated language in saying that architects are entitled to more consideration than any other body of men!

The Cheap Cottage Again.

MR. ARNOLD MITCHELL has designed and built a cottage at Great Baddow, in Essex, in which he claims to have solved the problem which has aroused so much discussion—that of designing a cottage which can be built for less than £150 or £160. He has copyrighted his design under the provisions of the Copyright Act, and so it can be used by any landholder on payment of a small fee. The cost will vary in different districts, but not, it is thought, more than 10 per cent. Cottages on this design are being built of brick and tile in Lincolnshire, Suffolk, Essex, and Surrey, and stone and tile in Oxfordshire, and while the amount may be £110 in the Midlands and £100 in the Eastern Counties, it is thought it will not be more than £120 even in expensive districts. The annual cost, calculated on a 4 per cent. basis, with $\frac{1}{8}$ acre of land at £40 per acre, an annual allowance for repairs and insurance, works out at £5 8s. 6d., a sum which does not include rates and taxes. As a half-crown cottage brings in £6 10s. a year, it is considered that there is a margin of profit on the transaction. The accommodation is:—Living-room, 15 ft. by 9 ft.; bedroom, 9 ft. 3½ in. by 8 ft. 1½ in., available as a small parlour; and two bedrooms over 12 ft. by 10 ft. 6 in., while the smallest has a superficial area of 65 ft. The cottage, which is illustrated in the *Times*, is simply and well treated, and we are glad to think that this important problem is being well considered and thrashed out.

Industrial Art in England.

SPEAKING at an exhibition of Arts and Crafts at High Wycombe, Professor W. R. Colton, A.R.A., said that as a nation we seemed to be blind to modern fine art, unless indeed it were grossly eccentric, and, what was yet more important, we were indifferent to development in modern industrial art. Whatever prosperity our art industries might have was obtained in one of two ways—either in making cheap goods indifferent in design and execution or by making imitations of old examples. He added that we sadly lacked the organised assistance of the State We had neither a Ministry of Fine Arts nor museums of modern industrial art. The French Government were both practical and imaginative in looking after the serious business of art, whereas in England no funds were available to buy modern examples of fine or practical art or room to exhibit and warehouse them. The Victoria and Albert Museum had gradually divorced itself from modern and living work, and was becoming a museum of examples of a certain period rather than a catholic collection of the work of all periods which might be useful to the designer. He suggested that an attempt ought to be made to bring back this museum, which had always belonged to the art worker and designer, to the original idea—an educational rather than an antiquarian one—and that no fresh examples should be acquired for any reasons other than æsthetic ones. We think Professor Colton's views are sound, and hope that the action we have taken as to a Ministry of Fine Arts may serve to call attention to a great national want.

Mr. Bernard Shaw on Art.

MR. GEORGE BERNARD SHAW gave a lecture on October 20 at the Three Arts Club on the "Economics of the Three Arts of Music, Art, and the Drama." The audience was, unfortunately for the majority of our readers, confined to ladies, and Miss Lena Ashwell presided. Mr. Shaw stated that the exchange value of an artist's work very often bears no relation to what he felt was the real value of the thing, but was often in grotesque contradiction of it. As far as things and not people were concerned, the subject had been sufficiently dealt with by Ruskin, but when one came to people the anomalies were staggering. A lady could get very largely paid for the exhibition of an attractive figure without displaying great talent, and could have a motor and a comfortable time, while Florence Nightingale, Josephine Butler, Joan of Arc, and Mrs. Pankhurst were violently maltreated for what they did; but there was no use in quarrelling with this contradiction in terms, for if they did they simply starved. What the painter, pianist, and singer took into the market was himself or herself, and they had to sell themselves on the same terms as fish, the price being strictly regulated by supply and demand. There was no art in which people had to sell themselves so deplorably as in the profession of the journalist and writer. Mr. Shaw is always amusing, and often instructive, but there is no absolute necessity to trace any intimate connection between the subject of his lectures and the title given to them. We believe that fundamentally Mr. Shaw is a moral sentimentalist, posing more or less successfully as a cynic.

A Cardiff Suggestion.

WE understand that, now the old Town Hall of Cardiff is being demolished, suggestions have been made that the façade should be preserved and re-erected as a triumphal arch across Kingsway. The building in question was erected about sixty years ago from designs by the late Mr. Horace Jones, and the inhabitants of Cardiff are fired by the example of Manchester, the Corporation of which city erected the façade of their old Town Hall in Heaton Park. The front is 130 ft. in length and 55 ft. high from pavement to parapet. The Arc de Triomphe and the Arc de Triomphe de l'Etoile, as well as the Brandenburgher Thor and Marble Arch, are spoken of as showing what Cardiff should have. But surely it must be recognised that a triumphal arch erected for that purpose only is a monument designed for a specific purpose and may be right and proper as such, while the façade of a building must, if used as a triumphal arch, be matter which is used improperly, and therefore is bad art. So we hope that Cardiff will hesitate and drop the scheme.

Oxford and Piccadilly Circuses.

ON June 16, 1813, the Report on the Bill for the formation of a new street from Marylebone Park to Pall Mall was considered by the House of Commons. An objection was raised to the circuses which it was proposed to form where the new street intersected Oxford-street and Piccadilly. It was said that Nash's reason for the circus in Oxford-street was that it would "avoid the sensation of passing Oxford-street and insensibly unite the two divisions of the City." Mr. Wharton, in dissenting from this view, said he did not think so "fine a street ought to be spoiled to avoid the sensation of crossing it." The exact meaning Nash had in his mind is as obscure to us as is Wharton's objection, but we may feel thankful that the "circuses" were provided, as they certainly are absolutely necessary in view of the existing traffic. It is interesting to note that the Globe Insurance Company were willing to lend £300,000 of the £500,000 required for the new street on condition of having the whole of the Crown property insured in their office, and that this was condemned as being an "improper bargain." We imagine that the political conscience of the time was more scrupulous than it is at present in some matters.

The "Free Workers."

THE first annual meeting of the National Society of Free Workers, Ltd., was held at Birmingham on October 17, when Sir Henry Fairfax-Lucy delivered an address in which he stated that the object of the Society was to protect by every means in its power the right of individual members to live and work in freedom as long as they did nothing to interfere with the enjoyment of a like freedom by all others. They wished to maintain the principle of personal freedom and personal responsibility, and to do what they could to conduce to these results. The Society was not formed to break trade unionism, but its organisation was rather due to the failure of trade unionism to maintain the liberty of the subject and to carry out its contractual obligations. Changes for the worse had arisen since the Trades Disputes Act came into force, a measure which made proper control by the men's leaders almost impossible. The Act enables one set of men to compel another man to do what he has a right not to do, and to abstain from what he has a right to do, and it sanctions inducements to break contracts, and instead of peaceful persuasion we have peaceful persecution—a contradiction in terms—when there is no doubt that the picketing that is going on—watching and besetting—should be prohibited. We quite agree with the foregoing, and have always failed to see how the Legislature could ever have been induced, even by Party pressure, to sanction "picketing" in any shape and form.

THE CHADWICK PUBLIC LECTURES.

DELIVERED BY MR. W. E. RILEY, F.R.I.B.A., M.INST.C.E., R.B.A., AT GLASGOW.

SANITATION IN ITS WIDER ASPECTS.

Lecture No. II.—Unhealthy Houses, Improvement Schemes, and Lodging-Houses.

IT will be remembered that the procedure under Part I. of the Act of 1890 was considered at the previous lecture, and, as a corollary and part of the reconstructive side of housing, some reference must be made to Part II., which provides in two ways for the improvement of working-class dwellings.

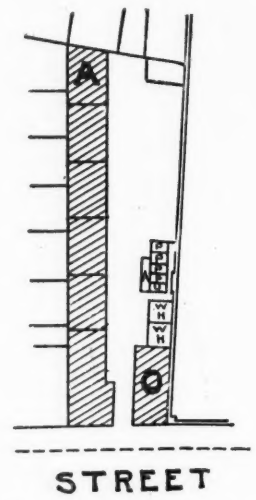
In the first place, in London the County Council and the Metropolitan Borough Councils are empowered, either jointly or separately, to undertake schemes for the clearance and rearrangement of unhealthy areas which are too small to be of general importance to the whole of the county. The procedure is similar to that under Part I. of the Act, but it is not essential that rehousing accommodation for the persons displaced should be provided, although the Local Government Board may require the provision of such accommodation as may seem to the Board to be necessary.

Secondly, it is the duty of each Borough Council to cause inspection of its district to be made in order to ascertain whether any dwelling-house is in a state so dangerous or injurious to health as to be unfit for human habitation. Upon the existence of any such insanitary dwelling being reported by the Medical Officer of Health, the Borough Council may issue an order for the closing of the premises, and after the closing order has been operative for three months the Borough Council is required to consider the question of the demolition of the premises with a view to the making of a demolition order. In these cases the property is not purchased by the Borough Council, and the cost of the necessary works of demolition or repair is borne by the owner, who has a right of appeal to the Board against the Borough Council's decisions. Borough Councils may also purchase and demolish obstructive buildings—*i.e.*, buildings which by reason of their position stop ventilation to, or prevent measures being taken to remedy nuisance in respect of, other buildings.

The Borough Councils are required to forward to the central authority copies of all closing and demolition orders, and representations as to obstructive buildings, and to report from time to time such particulars as may be required respecting any proceedings taken in such matters. The central authority has power to act in default of a Borough Council as regards the closing and demolition of any unhealthy or obstructive buildings, and to recover from the Borough Council the expenditure incurred.

The power of Borough Councils themselves to make closing and demolition orders was introduced only by the Act of 1909, and is very far-reaching. Before 1909, proceedings had to be taken in a court of summary jurisdiction, and the great difficulty experienced in inducing magistrates to order the closing of dwellings alleged to be insanitary undoubtedly had the effect of lessening the activity of the Borough Councils in this direction. It will be remembered that I gave an example of a case which the County Council encountered in making the clearance for the Strand improvement.

Compensation in respect of lands, etc., taken compulsorily under Parts I. or II. is based upon the fair market value, no additional allowance for compulsory purchase being made in respect of the insanitary property. This proviso does not apply in the case of property which is not in itself insanitary, but which is taken for the purpose of making a complete scheme. In fixing the amount of compensation deductions



Birmingham: Plan of Courtyard with obstructive building.

may be made on account of (*i.*) an enhanced value by reason of the premises being overcrowded or used for illegal purposes; (*ii.*) the bad state of repair in which the premises are found; and (*iii.*) the property not being reasonably capable of being made fit for habitation. In cases of compulsory purchase terms of settlement are decided, failing agreement, by an arbitrator appointed by the Local Government Board.

Those who have been engaged in housing operations are well aware of the different

Birmingham: Courtyard after repair.

opinions which are held as to the comparative utility of proceeding under Part I. for the clearance of an insanitary area or under section 38 for the removal of buildings which obstruct the light and air to adjacent dwellings. Each system is dependent, to a large extent, on particular circumstances, and generalisation is difficult. Advocates of Part I. contend that nothing but an improvement scheme can effectually remedy the conditions existing in a particular area, and that the exercise of the powers of section 38 for the demolition or repair of isolated obstructive dwellings only produces a patchwork result, by which displaced tenants migrate to similar houses elsewhere, aggravating the overcrowding and insanitation which the authority wished to ameliorate. It has been stated that of those who are turned out of their homes owing to their houses being seized by the sanitary authorities, a very small percentage are actually rehoused. The examples of London and Liverpool are often quoted to illustrate the benefits conferred by Part I. operations, where whole areas have been rebuilt and accommodation provided for rehousing. On the other hand, supporters of Part II. point to the heavy expense involved in Part I. operations; to the almost invariable experience that the population displaced does not return to the new houses, but finds accommodation elsewhere; and that by dealing with individual houses only bad property is repaired or demolished, whilst what is sound is left standing, thereby avoiding waste and house famine. Whether Part I. or Part II. shall be applied to any particular area must always be a problem for determination according to the special circumstances of each locality.

It is clear that procedure under Part I. is a power with which the County Council has been invested, provided it is satisfied of the truth of the representation, and

(*a*) That an improvement scheme is the most satisfactory method of dealing with the evils connected with such houses, courts, alleys, etc.

(*b*) Whether the case is of sufficient general importance to the county that it should be dealt with under Part I.

If these tests are satisfied a resolution must be passed that the area is an unhealthy one and that an improvement scheme ought to be made.

The local Council may, however, appeal a decision of the central Council, if it decides not to proceed under Part I., to the Local Government Board.

A case bearing on the question has lately been considered in London, and may be cited as an illustration. It is the Brady-street area at Bethnal Green.

Under Part I. of the Housing Act, 1890, a representation was made by the Medical Officer of Health of Bethnal Green to the County Council in February, 1904, as to 226 houses inhabited by 1,286 persons.

The average death rate was then 28·5 per 1,000, as against 21·3 per 1,000 in the whole of Bethnal Green and 16·4 the average of London.

The representation pointed to a total clearance of the area, which was described as being covered by houses in the worst possible condition. Reports were current that the property was drifting into the hands of those who made a speciality of dealing with such problems as the property involved.

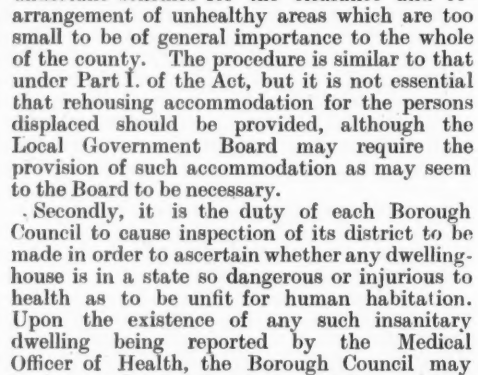
The rearrangement of the area at the public expense was therefore stated to be not altogether justifiable, and the local Council was asked to exercise, as far as possible, its powers under the Public Health and other Acts for remedying the evils connected with the area. Little, however, was done to improve the area in the subsequent eight years.

Last year (April, 1912) another formal representation was made increasing the area represented by a further 306 houses, accommodating 1,772 additional persons, making a total of 3,058 living in alleged unhealthy houses. The total area is about 7 acres, and between the two representations eighteen houses, accommodating seventy persons, have been demolished.

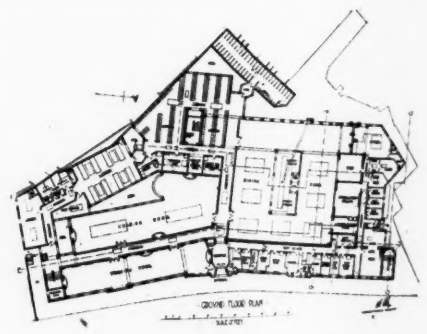
The death rate was stated to be 24·74 per 1,000, as against 16·71 for the Borough and 14·00 for London as a whole.

Again the central body suggested proceeding under Part II., but the local Council stated that it was considered that it would not be effective, and that the cost would fall on a poor and declining district.

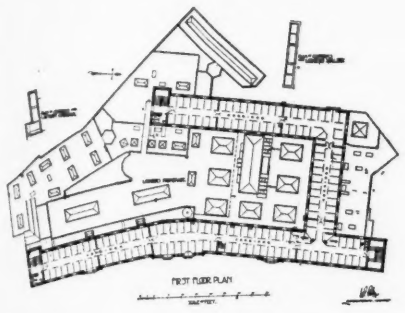
If the very important and material question of relative expense is abstracted and the serious question whether the owners of the property should not bear a much larger part of the burden of improving or removing their unhealthy and decayed houses, it is obvious that an improvement scheme is, in the words of the Act of 1909:—"The most satisfactory method of dealing with the evils connected with such houses, courts, and alleys, and the sanitary defects in such area." Such a scheme enables the reconstruction not only of dwellings, but also of the ground plan of an area; and, if the obligation to rehouse a number of people equal to the total number displaced be not insisted on, it allows the Council, as in the Tabard-street instance, to create open space and to



Birmingham: View of Courtyard with obstructive building.



Carrington House: Ground Floor Plan.



Carrington House: Cubicle Floor Plan.

diminish the pressure of population in a much overcrowded district.

On the other hand, the central authority considered that it is increasingly felt by those competent to judge that under the law as it stands at present, and with the existing practice in valuation by arbitrators, landowners probably receive, and the ratepayers have to pay, too much for property of this description.

The procedure to be adopted at Brady-street has been again considered by the central authority, and in the meantime the attention of the public and Parliament has recently been strongly directed towards necessary reforms in the provisions of the Housing Acts. A Bill for this purpose passed the Second Reading by a decisive majority in the House of Commons in the session of 1913. This Bill, apart from the contested proposal of national grants in aid of the local authorities for housing purposes, contained important provisions modifying in certain cases the principles of valuation and compensation. It also contained a provision applicable to London, under which the powers of making closing orders, etc., could be transferred by friendly agreement from any Borough Council to the County Council. This Bill was withdrawn in Committee, but the discussions connected with it elicited pronouncements both from Ministers and leading members of the Opposition, which showed that early legislation may be confidently expected, and will be of a thorough character.

Before coming to a final determination as to the method of dealing with the Brady-street area the central authority desire to wait and see the exact form the projected legislation will take. It is clear that while anticipatory announcements of this kind have been made by responsible leaders they must have the effect of arresting any large action and expenditure in the matter by local authorities until the result is known. It is anticipated that any additional legislation will in all probability enable this and similar areas to be dealt with in a more satisfactory manner and at less cost to the ratepayer than is the case under the present law.

It cannot be forgotten that where obstructive buildings are removed the occupants who are displaced must find elsewhere accommodation for which no provision is made in the Act. The work accomplished in Birmingham is the most useful illustration of the operation of this section, and by the courtesy of the Medical Officer of Health I am enabled to show an illustration of a courtyard from a street showing the dwelling-house on the right as an obstructive building. No. 2 is a plan of the property from the Ordnance map showing the houses involved. All of those cross-hatched were represented as unfit for human habitation. The house marked "O" was represented as an obstructive building in order to improve this courtyard; the house marked "A" was removed in order to make accommodation for the water-closets; and all washhouses and other buildings in front of the dwelling-houses were removed so as to clear the courtyard, and two washhouses were provided at the upper end of the court. The front wall of the dwelling-house was found to be out of the perpendicular and dangerous. The front wall was taken out and reconstructed, proper damp-courses being provided in all the walls. The ceilings in all the rooms were removed to get rid of the filth that had accumulated. Each house is provided with a water supply inside and a sink and also with a ventilated food cupboard.

A further illustration shows the courtyard after completion and the removal of the bottle-neck. The whole of this work is done at the expense of the owner, with the exception of that relating to the removal of obstructive buildings. These buildings are removed by agreement, the cost of the two dwelling-houses in the particular cases mentioned being £50.

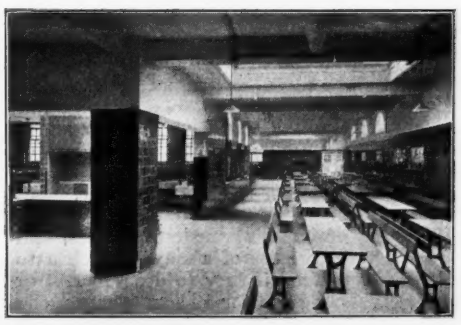
A somewhat unique case of the closing of a portion of a building came under my notice. A block of buildings in Shepherd-street, Stepney, was found to be overcrowded, and two rooms on the first, second, and third floors were lighted from a small and entirely enclosed area, and would not comply with section 45 of the London Building Act, 1894, which prescribes a two-to-one angle of light at the window-sills of habitable rooms when they are so enclosed. The case was dealt with by the Medical Officer of the district, and he succeeded in getting the rooms closed under the Housing and Town Planning Act.

In his report the Medical Officer of the district states: "The Act cannot be proceeded with further with regard to these tenements, as it is impossible to proceed with a demolition order without at the same time pulling down the whole of the Shepherd-street buildings."

The Mill-lane, Deptford, Improvement Scheme is an example of proceedings under Part II. A representation under Part I. of the Act was made in 1891 to the Council, who were, however, of opinion that the area should be dealt with by a scheme under Part II. The property comprised in the area was old and ill-arranged, and as an indication of the danger to public health it may be mentioned that a serious outbreak of enteric fever in 1892 was traced to ice cream sold by Italians living within the insanitary area at Mill-lane. It was decided to carry out a scheme for acquiring fifty houses occupied by 715 persons, to erect dwellings to accommodate 550 persons, to widen Mill-lane to 40 ft., and to dedicate any surplus land to the highway or for an open space. The Greenwich District Board agreed to pay half the net cost of the scheme. No fewer than 429 of the persons displaced had occupied accommodation in common lodging-

Bruce House: Elevation.

houses, and the Council thought it desirable that the new accommodation should be provided in a common lodging-house and block dwellings. The District Board, however, opposed this suggestion on the ground that there was no need in the district for such accommodation, and that cottage dwellings were required. The cleared area was insufficient to provide room in cottages for the requisite number, viz., 550, and the Local Government Board offered to reduce this number to 272 on condition that the Council built accommodation for 278 on land in the neighbourhood. This was found to be impracticable, and it was decided to erect a lodging-



Bruce House: Dining-room.

house for men and twenty-four cottage dwellings. Sylva-cottages, to accommodate 144 persons, were erected in 1902, while the lodging-house known as Carrington House, to accommodate 803 persons, was completed in 1903.

The provision of lodging-houses has been a

Bruce House: Smoking-room.

distinctive feature of the municipal housing policy in London, and it may be interesting to give some particulars of the one most recently erected. Bruce House was built to rehouse persons displaced in connection with the Holborn to Strand Improvement, and provides accommodation for 708 men. The lodgers' section on the ground floor contains a dining-room, smoking-room, reading-room, and writing-room. The dining-room has a floor area of 5,177 sq. ft. Fixed teak tables and seats are provided to accommodate 360 men at one time. Near the middle of the room an open chamber is provided for a large hot plate, at which lodgers can cook their own food. Sinks with hot and cold water are provided where food can be prepared for cooking. A cylinder is fixed at each end of the hot plate chamber with a constant supply of hot water for making tea, etc., and there are two cooking ranges. The lodgers' crockery store is placed at the side of the dining-room, and any lodger electing to cook his own food will find both cooking utensils and crockery. The smoking-room has a floor area of 1,907 ft., and contains fixed tea-tables and seats, accommodating ninety-six men, in addition to movable armchairs. The reading-room is similarly furnished, bookcases containing books for the use of the lodgers being provided. There is also a special writing-room approached from the reading-room. There are also locker-rooms fitted with 690 sheet-iron lockers, and a parcels-room fitted with shelves for lodgers' boxes and parcels. In the basement is a lavatory-room fitted with sixty-eight basins, each having hot and cold water supply. The feet-washing-room adjoins the lavatory, and is fitted with eight troughs, hot and cold water being laid on. The bathrooms are near the lavatory, and contain five slipper baths and one shower bath, with hot and cold supply to each. Two rooms are placed near the lavatory for lodgers desiring to change their clothes whilst the cubicles are closed. The lodgers' washhouse is fitted with ten washing troughs with hot and cold water for the use of lodgers wishing to wash their own garments. There is also a drying chamber, fitted with drying horses, heated by steam coils. Shops are provided for a barber and a bootmaker, and a room adjoining the bootmaker's shop is fitted with a bench and is allocated for the purpose of boot brushing.

With regard to the cubicle floors, each is divided into sections by division walls, which admit of the isolation and disinfection of sections in the event of contagious disease, and would also check the spread of fire. Each lodger has an independent cubicle with a minimum width of 4 ft. 10½ in., and an area of 36 sq. ft., and is lighted by a separate window. The height of the stories from floor to ceiling is 9 ft. The partitions between the cubicles are 7 ft. 6 in. in height, the portion adjoining the corridor is 6 ft. 6 in. in height, thus ensuring ample ventilation. Each cubicle contains an iron bedstead with a spring mattress, the whole of which can be folded back against the partition for the purpose of sweeping and cleansing the floor. Ample provision is made for escape in case of fire. The usual offices are provided on each floor on the staircase landings for night use, where there are also taps for drinking water. Administrative quarters are provided in the ground floor and basement for the superintendent and staff. It may be of interest to know that the charge is 7d. for a single night, or 3s. 6d. per week. There are also ten cubicles at 1s. and seven at 1s. 2d. per night, or respectively 5s. and 6s. a week. Although it was not anticipated that the number of lodgers taking weekly tickets would exceed 50 per cent., it was decided that not more than one-half of the total

accommodation should be let at the lower rate, as to exceed this number would be to reduce the receipts to a degree that would prevent the lodging-house paying its way. For the use of a locker 6d. is charged for the key for any length of time, 4d. being refunded if the key be returned. Small parcels may be stored for 1d. per month, and parcels exceeding 6 cubic ft. for 2d. per month. For a private bath with hot and cold water 1d. is charged, including soap and use of towel. Payment for a bed ticket carries with it the following privileges:—Use of the public rooms, library, daily papers, cooking utensils, crockery, etc., lavatory, feet-washing-room, lodgers' washhouse, boot-cleaning and dressing rooms, and of the promenade which is provided on the first floor flat over the dining and locker rooms.

The success of common lodging-houses for men is dependent to a great extent on local labour conditions. Changes in this direction considerably affect the financial result, and, as an example, Carrington House may be quoted. Some years ago an embargo was placed upon the importation of Argentine meat, which was previously dealt with at the docks in the vicinity of Deptford. The consequence was that the need for casual labour disappeared at the time and has never returned, with the result that the patronage of Carrington House has been considerably affected. It is, of course, essential that some persons of the working class should live in close proximity to their work. This applies to those who have exceptional hours of employment—*i.e.*, very long hours, very late hours, or double shifts—or are in irregular or uncertain employment or have special occupation. For many of these the common lodging-house provides a satisfactory solution of the housing problem. It is impossible to anticipate the changes by which the location of particular employments is transferred from one place to another, but, generally speaking, it is contended that, given certain conditions, the common lodging-house for men meets an undoubted necessity.

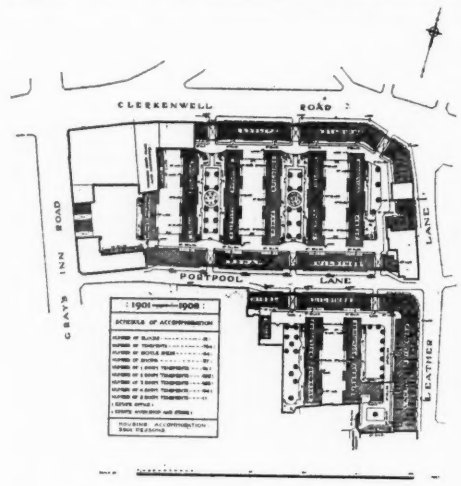
The common lodging-house for women presents a much more difficult problem. The provision of such an institution was considered in 1902 with a scheme under Part I. for the clearance of insanitary areas in Southwark, and it was thought that the locality afforded exceptional advantages for the erection of a small lodging-house for women in connection with the block dwellings and shops then contemplated. It was proposed to erect a lodging-house for fifty-seven women on the cubicle system, with a common dining-room, sitting-room, and the necessary offices. The chief item of expenditure was for staff, which amounted to over 41 per cent. of the income. The estimate for the block dwellings was as follows:—

	£	s.	d.
Gross rents receivable	5,431	16	0
Estimated outgoings	2,550	14	0
Net income	£2,881	2	0

The estimate for the women's lodging-house was:—

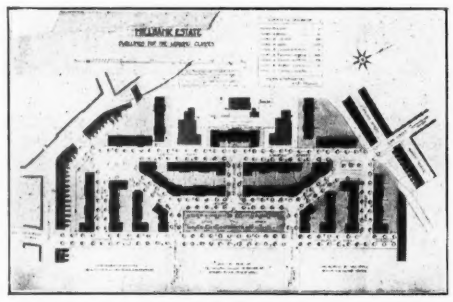
	£	s.	d.
Gross rents receivable	596	8	9
Estimated outgoings	105	10	2
Net income.....		18	7

It will be seen that the outgoings in respect of the lodging-house were practically 100 per cent., leaving a capitalised value of only £24 available for land and buildings, the estimated cost of which was £9,450. It was, of course, impossible to make so small a house self-supporting, but by building it in conjunction



Bourne Estate: Laying-out Plan.

with block dwellings and shops it was hoped to carry out a very interesting experiment and provide a much-needed class of accommodation without involving a charge on the rates. The project was, however, subsequently abandoned, and the special considerations which must be taken into account in connection with this class of building make it very doubtful whether it can be constructed and managed without a



Millbank Estate: Laying-out Plan.

liberal subsidy. Apart from the great social problem involved in bringing together women lodgers, the necessity for the adoption of a smaller number or unit as compared with the men's lodging-house and the consequent large increase in outgoings add greatly to the difficulties presented by this problem. A women's lodging-house has recently been erected in London by the Ada Lewis Trust, and the results of this experiment are awaited with great interest.

The late Mrs. Lewis-Hill, by her will, left a legacy for the purposes of founding in London, on the principle of the Rowton lodging-houses, women's lodging-houses, to be called the "Ada Lewis Women's Lodging Houses."

The first of these buildings has been erected in New Kent-road at a total cost of about £35,000, including land. There are 240 cubicles, and the building was opened to the public on February 5, 1913.

The prices for accommodation are:—Single bedrooms, 6d. and 8d. per night, or 3s. to 4s. per week; double bedrooms, 10d. per night, or 5s. per week; special bedrooms, 10d. per night, or 5s. per week. These prices include use of dining, reading, sewing, and common rooms, laundry and drying-room, foot-baths, and brushing-room.

Meals are provided at moderate prices, and residents have free use of a special kitchen to cook their own food if they so desire. Hot or cold baths can be had for 1d., and lockers can be hired.

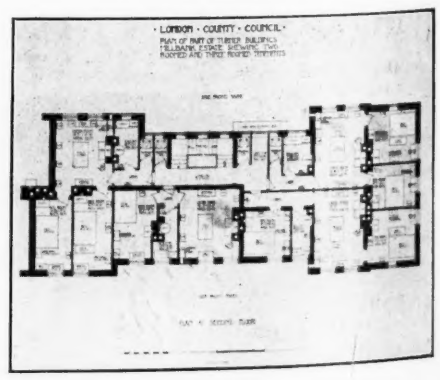
An important feature of the municipal housing operations in London has been the accommodation compulsorily provided in connection with metropolitan improvements, such as bridges, tunnels, street widenings, etc. The largest of these was carried out as a result of the construction of Kingsway and Aldwych, which involved the displacement of 3,700 persons of the working class. The special Acts of 1897 and 1899, which authorised the improvement, required the rehousing of these persons within a mile of their former habitations; and this brings at once into prominence a consideration which is of special interest to those concerned in municipal affairs, viz., the land question and the whole subject of financing rehousing operations. It is only necessary to state that one site of 2¾ acres, which was purchased for £201,000 in order to comply with the rehousing obligation at Kingsway, possessed a housing value of £44,000 (the balance of £157,000 having to be borne by the improvement scheme), to indicate the immense importance of this aspect of the question. The difference between the commercial value of central sites in London, utilised for the erection of new dwellings and their value restricted to housing purposes, is estimated at nearly a million pounds, and it must be remembered that in considering the financial result of the various housing schemes this difference is disregarded. A factor of such magnitude cannot fail to influence prudent persons in considering large schemes for public improvement. The difficulty of securing land within the central area at a price which will admit of the erection of working-class dwellings with a reasonable prospect of financial success without charge upon the rates renders it necessary to search for such land in less populated zones in extra-urban areas with easy, rapid, and economical locomotion to outlying districts. When the search is successful it does much to simplify the housing question. A comparison of the effect of housing at the Council's cottage estate at Tooting and the Bourne Estate, carried out in connection with the Holborn to Strand displacement, will illustrate the point. The cost of a three-roomed cottage at Tooting, together with the land and the portion of the road and sewer chargeable to it, was estimated at £263 10s., the actual cost of a three-room tenement at the Bourne Estate, including land, foundations, and superstructure, being about £760, the land alone costing £454. It will thus be seen that a family of six could be housed at Tooting for about five-eighths of the cost of the land alone on the Bourne Estate.

As a further instance of the far-reaching effect of these factors in the problem it may be stated that during the present year sites for the erection of additional school buildings have been scheduled in London, involving the displacement of 6,000 persons of the working class. If the obligation to rehouse them within a mile were enforced a very heavy charge on the cost of education will be incurred.

A description of the principle adopted in regulating the finance of any given scheme in London will probably be of interest. In cases in which the Council itself decides to erect dwellings in preference to selling or letting the land for that purpose the rents to be charged shall not exceed those ruling in the neighbourhood, and shall be so fixed that, after providing for all outgoings, interest, and sinking-fund charges, there shall be no charge on the county rate in respect of the dwellings, and that all such dwellings shall be so designed that the cost of erection may not exceed a sum which will enable these conditions to be complied with.

The interest and sinking-fund charges shall be calculated upon the cost of erection, plus the value of the site, subject to the obligation to build dwellings for the working classes upon it. The effect of this regulation on the building erected is illustrated by the financial position of a block of dwellings yielding a rental of 2s. 7½d.

Bruce House: Cubicle.



Millbank Estate: Plan of one block of Turner's Buildings.

per room per week. Of this sum the architect was given the capitalised income from 9¾d. to erect the buildings, which is only equal to 30·9 per cent. Let it be realised that the buildings must earn everything; they must earn not only the interest for the sinking fund, but they must bear the cost of the buildings themselves, and the land, management, rates and taxes, repairs, insurance, and contingencies which will enable these dwellings to be returned to the ratepayers free of all encumbrances at the end of fifty-nine years.

I think that 30·9 per cent. of the rent capitalised is below the datum line which will build a satisfactory building.

As the Bourne Estate has been referred to as a typical example of rehousing in connection with an improvement scheme, some description may be necessary. The estate, including Reid's Brewery and Union Buildings, occupies a site about 4⅝ acres in extent, on which have been erected twelve block dwellings containing 764 tenements for the accommodation of 3,902 persons.

The tenements are arranged as follows:—One estate office, one estate workshop and store, sixty-four bicycle sheds, thirty-eight shops, thirty-one tenements of one room, 375 of two, 263 of three, ninety-four tenements of four rooms, and one tenement of five rooms.

The buildings were planned for the internal blocks to lie north and south as as to obtain the maximum of sunlight in the living-rooms, and each tenement has at least one room overlooking a garden.

The type of plan designed for these buildings is an improved balcony plan arranged so that the living-rooms and the bedrooms do not look on any of the balconies and have an unobstructed light.

The buildings are five stories high, with a few attics, and are constructed of fire-resisting material, with steel joists and coke breeze floors.

All the sculleries and water-closets are separated from the habitable rooms by a ventilated lobby.

Gas on the automatic prepayment system is laid on by arrangement with the gas company.

The height of all the rooms is 8 ft. 6 in. The average area of the living-rooms is 150 super. ft., and of the bedrooms 100 super. ft.

The average cubic space in the living-rooms is 1,275 ft., and in the bedrooms 850 ft.

The total cost of construction was £221,000.

It may be pardonable to mention here that it was of the Bourne Estate scheme that the late Lord Ritchie, when Secretary of State, stated in December, 1900, that "no more practicable scheme had ever been presented to a department than that which the Council had formulated on the housing question."

Part of the persons displaced in connection with the Kingsway Improvement were rehoused on the Millbank Estate, and some reference may here be made to that scheme, although strictly it comes within Part III. In accordance with a recommendation made by the Royal Commission in 1884, the Housing Act, 1885, authorised the Treasury, in the event of Millbank Prison being demolished, to sell to the Metropolitan Board of Works a portion of the site for working-class dwellings. As the result of negotiations the purchase was completed in 1896, the purchase-money being £22,242. The estate is situated to the rear of the National Gallery of British Art (Tate Gallery), and the dwellings on the estate were named after British artists. The central site was laid out as a garden, at a total cost of about £2,850, and seventeen blocks of dwellings have been erected to provide accommodation for 4,430 persons.

The length of time available has only enabled a more or less passing review to be made of the extent and character of municipal housing operations in the central areas of London. There remains a branch of the subject which is increasing in importance with the pressure of population and the growing demand for more light and air, viz., the provision of cheap working-class dwellings in suburban districts, and with this it is proposed to deal in the concluding lecture.

BISHOPSGATE BUILDINGS.

Banking premises, with a block of shops, offices, and residences, will be built in Bishopsgate, Pindar-street, and Primrose-street, as soon as the necessary excavations have been completed. The architect is Mr. Stanley H. Burdwood, Lic.R.I.B.A., York-place, Baker-street, and the general contractors are Messrs. Rice & Son, Stockwell-road, S.W.

THE CLASSICAL PHASE OF ENGLISH ARCHITECTURE:

THE CARPENTERS' COMPANY UNIVERSITY LECTURES ON ARCHITECTURE.

MR. A. E. RICHARDSON, F.R.I.B.A., who is this year giving the course of lectures organised by the Carpenters' Company on architecture, at University College, on Thursdays, has chosen for his subject the work of the eighteenth and earlier part of the nineteenth centuries. This period, as most of our readers are doubtless aware, has been made the subject of special study by Mr. Richardson, and anything that he may have to say about it must be regarded as weighted with the authority of geniune research, and is not merely the result of a hurried "cram," undertaken with the object of finding enough to say to fill ten lectures.

After a brief introduction by Mr. John Hooke, the master of the Carpenters' Company, Mr. Richardson rose to give his first lecture. The foundations of Neo-Classic architecture were, he said, laid in the early seventeenth century. The travels of Elizabethans had introduced into this country fragmentary details of the Renaissance architecture of Italy, but these details were misinterpreted and misapplied by English architects; and till the close of the first decade of the seventeenth century nothing was built which showed any real grasp of the new ideals and new methods. But at this point the haphazard application of Classic ornament suddenly gave place to order. The work of one man—Inigo Jones—was responsible for enabling this country to grasp nearly all the essentials of Renaissance architecture. The arts slumbered through the Commonwealth, kept alive by Jones's pupil, Webb. At the restoration there was a recrudescence of artistic activity in all its branches, which in architecture was associated with the name of Wren, who may be said to have opened the door to the eighteenth century.

Having thus briefly indicated the main lines of development which culminated in the style of the eighteenth century, Mr. Richardson devoted the rest of his time to a study of the work of Inigo Jones. In 1603 and again in 1613 Jones, in the train of wealthy noblemen, paid two visits to Italy, where he was able to make extensive studies and drawings of Classical buildings and Renaissance architecture, as well as fulfil the immediate object of his presence there, which was to collect objects of art and antiquity for his patrons. In 1619 he was ordered to design Whitehall Banqueting Hall. There can be no doubt, said the lecturer, that this hall was intended to be complete in itself. The scheme for the great palace was an afterthought, the carrying out of which was prevented by the civil dissensions which broke out about that time. The great interest which the Court manifested in the Classic revival was, however, shown by the fact that Charles sent Sir Kenelm Digby to Greece to collect statuary for him. In 1631 Inigo Jones built Covent Garden Church, and though it was burnt down during the same century it was carefully rebuilt from the original designs by Harvey. The double cube proportion introduced by Jones in many of his rooms—*e.g.*, the Banqueting Hall at Whitehall—became a favourite with later architects. In 1652 he died. The forerunner and also one of the most accomplished exponents of Classical architecture in England, Inigo Jones may be said to have raised the standard of monumental building for all time. Though no doubt he employed a large staff of pupils to carry out finished drawings from his own sketches, the name of only one of them—Webb—has come down to us. Webb, faithfully and with some ability, continued the work of his master.

In conclusion, Mr. Richardson showed a number of slides illustrating Inigo Jones's work, and perhaps the most interesting part of a wholly interesting lecture was his running commentary on the examples he had chosen. The first slides showed the Banqueting Hall in Whitehall. This, said the lecturer, was an example of horizontal composition which many people thought too equally divided. But the podium which carries the Order story must be considered in relation to the Order story, and, so considered, prevents the appearance of a too equal horizontal division of the façade. The central mass was, he pointed out, attained in the most delicate manner by disengaged pillars, and not by a crude or heavy pediment. The square cornices of the upper story windows gave in their horizontal line an admirable feeling of repose. Those in the lower story were not so good owing to their too varying lines—a weakness which Jones grew out of later. The lecturer also pointed out how carefully the details had been thought out, instancing the just proportions between the rustications and the pilasters. The whole design, he said, shows the elasticity and adaptability of the Classic Orders; it was not a copy. Referring to the plans of the Queen's House, Greenwich, and those of Coleshill, Mr. Richardson pointed out the great advance that was apparent in the later example. In the former nearly all the rooms were passage rooms, while in the latter a really adequate corridor had made its appearance. The placing of the main and subsidiary staircases close together was also a novelty, very commonly followed by succeeding architects.

Wilton House, which was next shown, was an example of the strong influence of Palladio. The treatment of the chimney-stacks and the way in which the scale was given by a 3-ft. balustrade at three places on the façade were points to which the lecturer drew attention. The eighteenth-century builders, he added, often overlooked the proper scale for the latter feature, and sometimes erred to the extent of a 12-ft. balustrade.

The designs of Coleshill were, Mr. Richardson thought, some of Jones's finest work. Interest centres in the grouping of the windows. The three windows at each end are slightly closer together than the three in the middle, which are rather more widely spaced, and at the same time the end windows are kept well away from the termination of the façade. The effect of the vertical lines is checked by a horizontal band running right round the building. Such a house would well repay careful study to-day.

Other slides shown included Rainham, where the academic simplicity of the central part is rather spoiled by the strange outlines of the flanking masses, the whole design being rather more picturesque than is usual in the work of this architect. Photographs of Ashburnham Hall, Thorpe Hall, and two houses in Lincoln's Inn-fields supplied material for further appreciation of Inigo Jones's work, both external and internal. The admirable design of some of his ceilings and the delicate effects achieved in his staircases, where the balustrades follow the Classic Orders in their details of column and entablature, were pointed out.

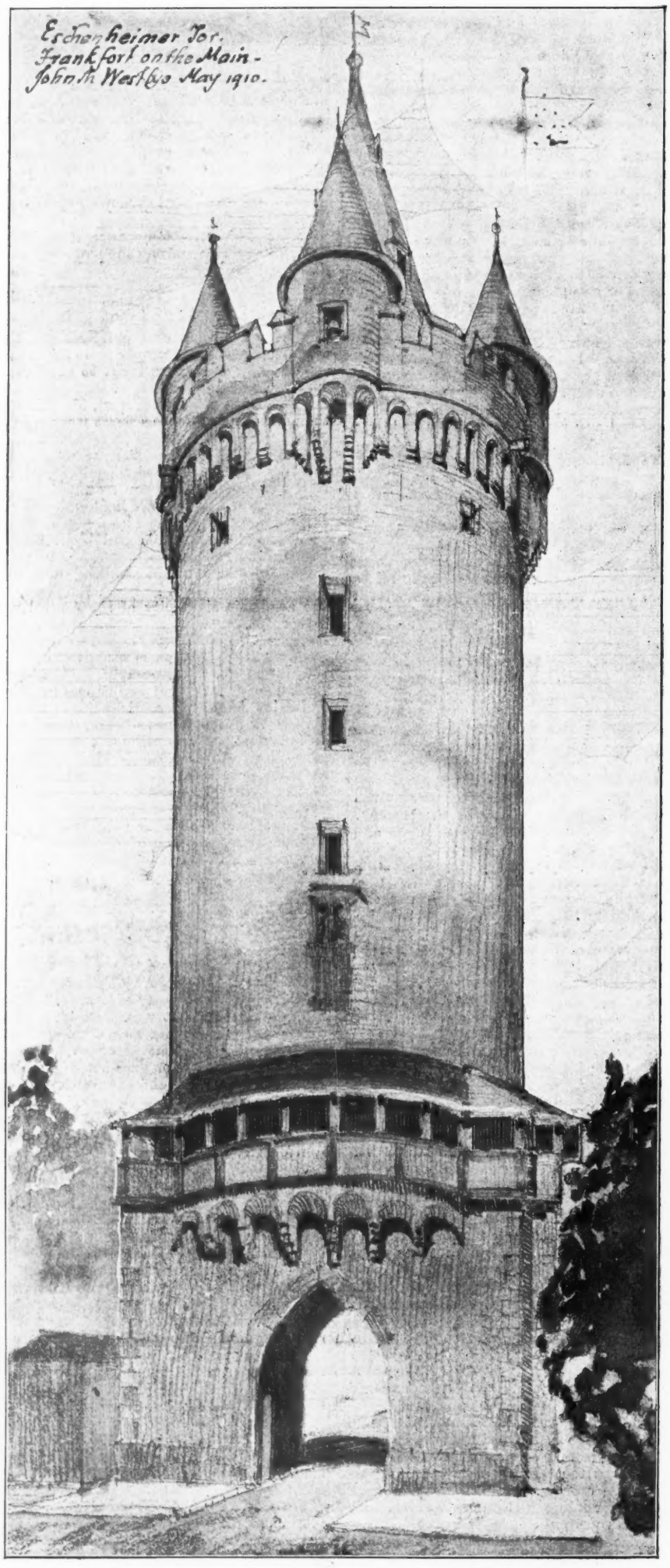
In his next lecture Mr. Richardson proposes to deal with the work of Webb and of Wren, and so reach the eighteenth century, where his subject proper may be said to begin.

BEAUTY AND TECHNIQUE.

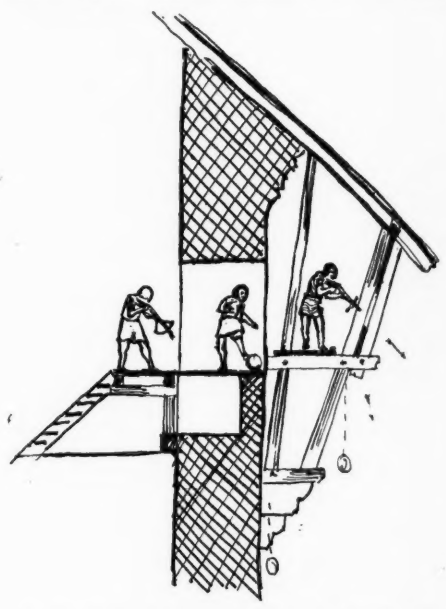
MR. KAINES SMITH devoted the third of his lectures on "The Nature of Beauty" to what he described as a by-way of beauty, the beauty of craftsmanship. It was, he said, a common critical mistake to ask *how* a thing was done and then stop without going on to the more important question of *why* a thing was done. This shortcoming on the part of critics had led to a very unfortunate attitude of mind on the part of the modern craftsman. For instance, a modern silversmith will use a coarser tool than is necessary in order to give to his work a "hammered" appearance, the idea in his mind being partly to get the same effect that the ancients achieved, and partly to make it quite plain that the work is done by hand. That is to say, he gives to mere antiquity a value of its own. He simulates the rude workmanship of a less skilled age simply because that age is far enough from his own time to have received the glamour of distance. We are in entire agreement with Mr. Smith in condemning this unreasoning homage to antiquity, which we think is one of the most pernicious influences in modern art; but, still, we must admit a distaste for work in which all impress of the tools that fashioned it has disappeared under a smooth and vacuous polish. The truth is that the modern silversmith is in an exceedingly difficult position. On the one hand, if he exercises his skill to the uttermost his work will have the accuracy and precision, and therefore the lack of interest, of machine-made things. If he is intelligent, he sees how much more effective is the clumsier work of antiquity, and so he naturally enough imitates that clumsiness in the hope of arriving at the same result. Of course he does not, but he has no idea why not, and we doubt if he will ever be convinced

that it is because he is too intelligent and too little of an artist, too interested in himself and his skill, and too little concerned with the expression of ideas. As Mr. Smith rightly said, "it should not matter how a thing is done, but modern criticism exalts the process above the result. Any means are allowable to attain one's end. Turner was justified in finishing off his oil-pictures in water-colour since that was the only way in which he could obtain the effect he wanted." We agree, but there is in this imperfect world a moral question, inextricably tangled up in every æsthetic problem. Turner was a tradesman who charged high prices for his wares. Was he justified in striving for an effect which could only be attained by tricks, the nature of which was so unsound technically as to make it certain that a few years would see them disappear from his canvases? It is, of course, perfectly legitimate to argue that these effects were worth the money even if they only lasted six months, but we doubt if the buyers would see things quite in that light.

Mr. Kaines Smith went on to discuss the point whether there is any beauty in good work for its own sake, or only a moral value. He pointed out that beauty of technique is usually beauty of purpose, and that we admire the skill of many things because we take into consideration the time when they were done. In other words, our sense of perspective profoundly affects our judgments. Speaking of a modern copy of a Byzantine capital, the lecturer said that, though the accuracy of the copy was astonishing, yet, while the original was filled with vitality, the modern work was quite dead. Both were equally masterpieces of technique, but because technique was the only consideration in the mind of the copyist his work was valueless, while the original, though no more skilful, was beautiful because there was more than the wish to be clever in the mind of the man who made it.



Eschenheimer Tower, Frankfort.
Drawn by Mr. J. T. Westbye.



A. Section of Upper Part of a Gate Tower.

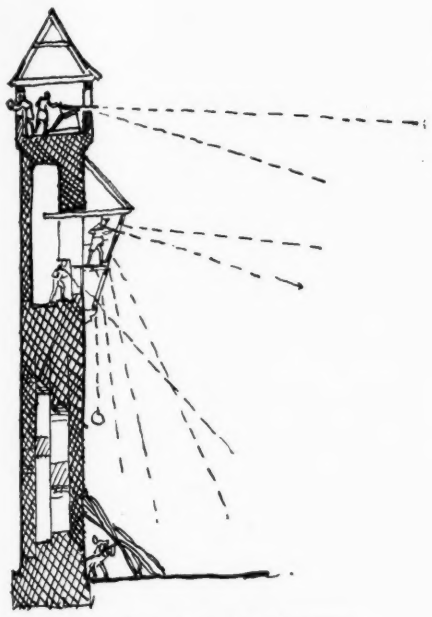
After some further examples emphasising the fact that skill, to be valuable, must be used to further some definite purpose or other, such as the expression of emotion or the beauty of the human form, Mr. Smith concluded his lecture by impressing on his audience that respect for the material employed is among the first duties of the artist. Every material has its own beauty, which should not be lost, as it is if the artist tries to make it look like something else. Metal-work should not be treated as though it were stone, nor, we might add, should water-colour pretend to be oil paint. To sum up, the beauty of technique only reaches its fullest development when technique is used as a servant. But there is a beauty of technique independent of anything else.

TOWERS OF FRANKFORT-ON-THE-MAIN.

FEW cities have more romantic situation than Frankfort, but it is not its position alone which has given it celebrity. Several German emperors have been crowned there, and its name is inseparable from the Ludwigs.

Both the artist and antiquary will find themselves in clover. The narrow, quaint streets are overlooked and commanded by watch-towers, which possess an impressive mediæval appearance and have associations historic as well as romantic.

Though the modern quarter of the town is commonplace enough (with the exception perhaps of an hotel and some ambitious business premises), fact, fiction, and piety have conspired to make old Frankfort famous. An air of



B. Section of a Guard-room.

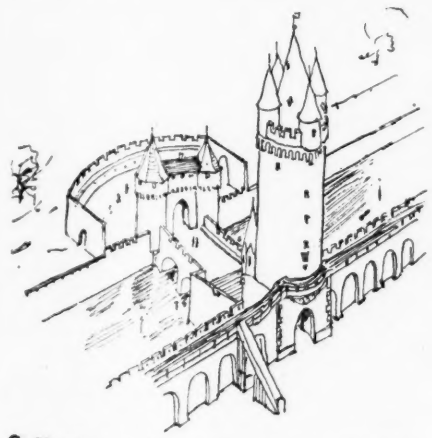
placid decadence hangs about its old-fashioned streets.

Frankfort had ecclesiastical sympathies as well as military ambitions, for, in addition to the fortifications, towers, and buildings so rich in the bizarrerie of the later school, it had the Salvator Kirche. This church was built in 852, and lasted only till 1239, when it was pulled down and the cathedral erected partly on its foundations. Up to the year 1792 this cathedral church of St. Bartholomew's was used for coronations of German emperors.

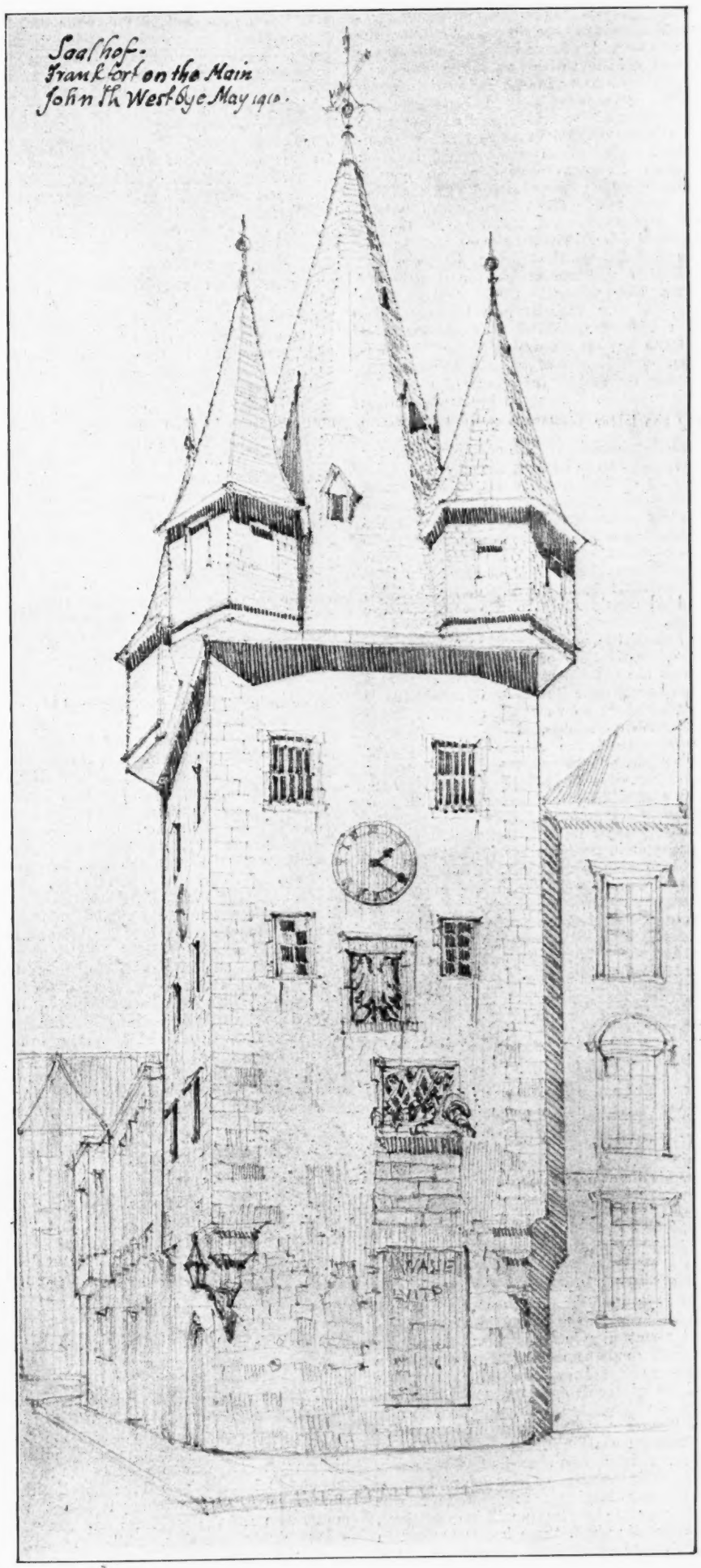
Referring to the towers generally, it is interesting to note what an important part these "Warten" played in the defence of the city. During day and night men were posted on duty. If an enemy appeared they displayed baskets to signify danger, and in later times the firing of a gun warned the citizens of the approaching army.

The towers were in most cases situated in such a manner that they could form a very effective point of vantage against the oncoming foe. The Eschenheimer tower is of a special type, being placed on the city wall at the vulnerable point where the entrance to the town bridges the moat. These should correctly be termed "gate towers," and occur in city walls and fortifications. Sketches A and B show sections through the upper part of two similar examples of towers, and they cast a peculiar light upon the methods of military tactics. In those days of warfare military science, if it can be so termed, won the day, not so much by the exercise of well-laid intellectual schemes for annihilating the enemy, but by the methods adopted. Naturally we find weapons employed and methods devised that are, to our minds, anything but in the true spirit of that chivalric period. Sketch B gives a section through the guard-room, where, should the usual missiles fail to check the onrush of the invading body, the guard hidden in these upper chambers might drop such persuasions as melted lead, boiling water, and oil upon the heads and shoulders of the attacking party. The climax of bellicose action seems to have been reached in the early fifteenth century, when melted resin, in conjunction with boiling pitch, was adopted. As the nations became more civilised social manners softened, the necessity of provision against sudden attacks was gradually reduced, so that the construction varied from the strictly military type as seen at Saalhof. The function of this type of towers was little more than the hoisting of goods from the craft on the river and for the collection of tolls. However, they are characteristic of mediæval German towns, especially that of the rival city of Nuremberg.

Referring to the sketches of the towers individually, Sachsenhauser Warte, which appears to have the oldest history, originally built of wood, was burned down several times and a stone tower erected in its stead. The



C. Sketch of Bridge: Frankfort-on-the-Main.



Saalhof Tower, Frankfort.

Drawn by Mr. J. T. Westbye.

adjoining countrymen did not look upon this tower with favour, always keeping a watching eye on their rights; and the Archbishop, Duke of Trier, several times attacked, and finally destroyed, it in 1416. A similar fate seemed to befall its successor, but after much ado it was saved by Kaiser Frederick III.'s generosity in 1476, and was presented to the citizens of Frankfort, who, armed *cap-à-pie*, restored it and have ever since kept it in good repair.

Eschenheimer Tunn was built 1400-28, and is now the last standing remains of the fortifications. The bridge (see Sketch C) over the ditch or moat which formed the entrance to the city was not in line with any of the streets, so preventing the enemy from firing straight down the street even when they had stormed the barbican, crossed the bridge, and shattered the port. Soaring up to a vast height, this magnificent structure shows the art of building and design almost to perfection—the boldly-contrived circular tower, crowned by a corbelled arcade with four conical turrets and battlemented parapet between, the whole dominated by a central spire. The conditions and circumstances that dictated the construction were that this position was the most natural point of attack, and consequently the central spot for defence. It was brought into intimate conjunction with the general fortifications, and formed the central feature in the whole composition. The legend of the poacher who got his liberty by making nine out of seven by piercing the vane with seven bullets, and thus making the letter ∴ is not in these sceptical days worth reiterating. The corridor or gallery on the inside went all round the city wall.

Saalhof's original date is not easy to trace, but it is mentioned as early as in 1338, when Ludwig der Bayer surrendered these buildings—of which the tower sketched is only a part—to the Corporation as Womenfeud. Its present external appearance dates from 1604. In 1697 it was acquired by a wealthy city merchant, who added considerably to the then existing buildings.

The last of the more magnificent towers, or rather spires, is that of the cathedral which dominates the older part of the town. It is a remarkably elaborate Gothic erection—a sort of filigree stonework so very often seen in these West German cathedrals.

The sketch of the Kleine Sandgasse, or Goethe's view, should not strictly come under this category, but it is such a characteristic view of a typical Frankfort street. The picturesqueness of these streets is generally enhanced by their irregularity, the roofing of the houses is in every conceivable pitch and angle, the overhanging bays and upper stories being so frequent and so similar in design. This part of the town seems to have retained until quite recent years the purity and quaintness of its architecture, in spite of the march of civilisation, which is rapidly blighting the city of a great deal of its charm.

MODERN FABLES.—No. III.

YOUTH.

YOUNG Bramante Smith was justly elated. Since the day, three years ago, when he had entered into possession of an attic (variously alluded to as "chambers" and "office") in the neighbourhood of Gray's Inn the unexciting course of his direct professional employment had embraced several house designs for speculative builders, a few domestic redecoration jobs, a shop-front for the display of groceries, and a pair of abandoned cottages at a garden suburb. He had always felt himself capable of better things, and had deplored the lack of opportunity for embarking upon Architecture with a capital A, such as he had so nobly, if insubstantially, splashed about him in his student days. He had, indeed, made something of a name as a student—was well known, that is, among the inner circle of architectural cognoscenti, who had prevented his gifts from rusting by allowing him to "work out" their own designs for various monumental buildings which had come their way, a duty which he had always performed to their manifest satisfaction and profit. In this vicarious fashion he might be said to be responsible for two theatres (spoilt in execution), a central meeting-hall, three hotels (ruined in execution), and several cheapened churches. He had also secured first premium in a competition for Federal Parliament Buildings for the Associated Orkney and Shetland Islands, in which case, however, the second premiated design (which he had prepared for Vitruvius Bigwig, A.R.S.A.) was the one actually carried out owing to the youth and inexperience of the author of the design placed first, who could instance no previous public building among his executed works. In the public eye, therefore, his shop-front remained his only accredited work, and there is perhaps some excuse for the public eye, which had commonly overlooked even this, for it graced a back street in Marylebone, less conspicuous than useful.

Now, however, he felt that his chance had come. By the good offices of a second cousin once removed, who formed one of a committee for the rebuilding of a church in a prominent position, he believed that he stood an excellent chance of securing this important commission. For weeks his soul had burned with artistic fervour as he set about the task of making preliminary sketches. His knowledge already embraced every known type of temple, from the archaic Greek remains of Corinth and Sicily to the 75th Church of Faith Healers in West 232nd-street, Pottville Center, Mo. This church was to be *the* twentieth-century church—a refinement of the liturgical and building wisdom of past ages, and, though never easily satisfied even by his own design, he was beginning to feel that his long period of training and probation had not been in vain, and that his quickly-conceived but slowly-wrought-out design would really achieve what he hoped for it—logical expression of purpose and structure in plan and massing, clothed by detail of virility and refinement. He had practically lived for his design during its whole period of inception and development, and he looked forward with rapture to seeing it grow under his hand and eye. Now it was so far completed that to-night his second cousin once removed was to lay it before his committee, and he felt almost assured that with the aid of the convincing water-colour perspectives which he had prepared even their lay inappreciativeness could not fail to perceive its suitability. But it didn't, for another member was *first* cousin to an eminent architect.

AGE.

The eminent architect summoned his manager to his sanctum on the first floor of the fine old house which had gradually become entirely devoted to his suite of offices. He was scanning with every appearance of material satisfaction a letter from his first cousin (unremoved) which he had just opened. "Another church, William," he remarked cheerfully as the managing man entered. "Something like that church we did ten years ago at Wolverhampton (or was it Wolverton?) would do, I should think. Seating for 800. Have the old drawings turned out and set someone to work as soon as you can. No, cost is unimportant; it can be well done this time. Use stone instead of brick, and oak instead of pitch-pine, at any rate. I can leave it to you until I return from assessing that competition at M'Bopo, then I'll have a look at it, and perhaps lick it into shape. You might put Gibbs and Chambers and Barry on the drawings at once. Here is a site plan. . . . What! Still at work on those details, are they? Well, you must get in two or three extra assistants. I'll leave it to you, but don't pay more than two guineas."

Moral.

There isn't any.

Lessons.

(1) The ewe-lamb of youth is just "one of the flock" to mature age.
(2) Blood is stickier than architectural ability.
(3) Unto him that hath shall be given, etc.

ARCHITECTURE AND THE STAGE.

WE cannot help thinking that the author of "People Like Ourselves" (Mr. Robert Vansittart), now being played at the Globe Theatre, is rather hard on poor humanity, as most of his characters appear to be little like the people one meets from day to day; but if the piece cannot be called convincing it is not without merit, some of the incidents and conversation being highly amusing, while the acting is particularly good, Miss Lottie Venne and Mr. Frederick Kerr, as Sir Joseph and Lady Juttle, the well-to-do middle-class snobs who long for "smart" society, and their son (Mr. Kenneth Douglas), being exceptionally effective. The various acts are well staged, the different rooms being designed in good taste. Act I, the dining-room of Sir Joseph Juttle's house at Queen's Gate, is effectively treated in mahogany panelling; and in Act II., the drawing-room of the same house, the dark-blue colour scheme and the general arrangement of the room are very good. The rooms in the other acts are also satisfactory.

Whilst affording little opportunity for scenic display, Mr. Eden Phillpott's new play, "The Shadow," performed for the first time in London at the Court Theatre on Monday last, is powerfully written and beautifully acted. Like in most of Mr. Phillpott's writings, the action takes place near Dartmoor, but on the whole this does not affect the scenery greatly. The setting of the prologue is a little general shop, the rest of the play, with the exception of the last scene, taking place in a cottage parlour, through the open door of which we get a glimpse of a pretty village square. The last scene is on the moors, this tableau being what we may call adequate.

No doubt there will be differences of opinion about the solution the author gives to the difficult, and at the same time intensely interesting, question he has raised.

Hester Dunnybrig (Miss Sybil Thorndike) is wooed by two men, both of whom she loves, but in different ways. Philip Blanchard (Mr. Julius Shaw), a butcher's assistant, wins her with his brusque and straightforward character. Elias Waycott, whose rich and miserly uncle, detested by all, is found murdered, goes away and travels round the world. He returns six months later, to find Philip and his wife a perfectly happy couple. Elias is arrested and tried for the murder of his uncle, whose fortune he would inherit. But Philip confesses to his wife that he, whose business it is to "do killing," murdered the old niggard under great provocation. Philip visits Elias in gaol, and arranges that if Elias is convicted he will confess at once, but if he is acquitted things should go on as before. Elias is found guilty and sentenced to death, but, sooner than let Hester, whom he still loves, lose her husband, he commits suicide. The news is brought just in time to prevent Philip doing away with himself after writing a confession. As usual with Miss Horniman's company, all the parts were well acted, and the warm reception given to the play was well merited by author and actors alike.

"The Shadow" is preceded by a little piece by the same author, entitled "Hiatus"—a play of very different metal, and it seemed to us rather superfluous, though well acted. The scene takes place in a newspaper girl's office—quite a comfortable-looking room, though rather homelike and tidy for an office.

ARCHITECTURAL SOCIETIES.

Bristol Society of Architects.

The opening meeting of the session was held on the 13th inst. at Messrs. Fortts, Ltd., 6, Royal Promenade, Clifton, when a presentation was made of a badge of office by Sir Frank W. Wills, a former President of the Society. In the course of his remarks Sir Frank Wills urged the younger members to adorn a noble art by avoiding everything degrading, by integrity of conduct, and by encouraging only a manly and honourable rivalry. In asking the Society's acceptance of the badge, Sir Frank pointed out that the majority of the societies allied to the Royal Institute of British Architects now possessed the insignia of office; further, that the Bristol Society was held in great esteem by the Royal Institute of British Architects as one that was doing excellent work in the provinces. The President (Mr. G. H. Oatley, F.R.I.B.A.), having been adorned with the emblem of office, in voicing the appreciation of the members for the gift, said that all were familiar with the many instances of help and encouragement given to, and the repeated acts of kindness and generosity bestowed upon, the Society by Sir Frank Wills.

Mr. R. C. James, F.R.I.B.A., seconded the vote, which was carried with acclamation and musical honours.

The jewel, which is in the form of an ellipse with a moulded frame enriched with architectural symbols, is of gold (executed by the Bromsgrove Guild), and has a centre of

enamelled work containing the City Arms and the inscriptions:—"The Bristol Society of Architects"; "Allied to the Royal Institute of British Architects." Two links of the chain contain the names of past Presidents, and amongst these appear Messrs. W. L. Bernard, Frank W. Wills, G. H. Oatley, Mowbray A. Green (Bath), J. Foster Wood, and the late Joseph Wood, and H. Dare Bryan.

Previous to the meeting, the following members of Council and visitors were the guests of Sir Frank Wills at dinner:—Mr. G. H. Oatley, F.R.I.B.A. (President); Messrs. J. Foster Wood, F.R.I.B.A.; W. L. Bernard, F.R.I.B.A.; G. C. Awdry, F.R.I.B.A.; R. C. James, F.R.I.B.A.; T. H. Weston, F.R.I.B.A.; W. S. Skinner, F.R.I.B.A.; H. W. Seccombe Wills; J. B. Wills, A.R.I.B.A.; G. C. Lawrence, A.R.I.B.A.; C. A. Bernard; B. Wakefield, Lic.R.I.B.A.; A. B. Botterill, A.R.I.B.A.; E. A. Blizzard; and C. F. W. Dening, Lic.R.I.B.A. (Hon. Secretary).

Glasgow Institute of Architects.

The quarterly general meeting of the Glasgow Institute of Architects was held on the 15th inst. in the Secretary's chambers, 115, St. Vincent-street, Mr. A. N. Paterson, A.R.S.A., President, in the Chair. The Secretary reported the proceedings of the Council with regard to the matters considered and dealt with since the previous general meeting, and of which the following were the principal items:—(1) Ancient monuments in Scotland—the first Commissioner of Works and the Secretary of Scotland had been memorialised, and the representations of the Institute had been given effect to; (2) correspondence with the Town Clerk in regard to proposed new bridges, alterations at the Tron Steeple and new tramway shelters, and with the Merchants' House in support of their action in connection with the proposed demolition of the Briggate Steeple; (3) agreement as to certain matters regulating building contracts entered into between the Institute and the Glasgow and West of Scotland Building Trades Employers' Council; (4) the laying-out of Cathedral-square; and (5) with regard to the lectures, intimation was made that definite arrangements regarding the first two had now been concluded, Mr. Lisle March Phillipps, of London, and Sir John Stirling Maxwell, Bart., having undertaken to address the Institute on Wednesday, December 10, and Friday, January 30, these to be open to the public as formerly. The action of the Council as to these matters was approved of. On the recommendation of the Council the following were unanimously elected Fellows of the Institute, viz.:—Messrs. George F. Boswell, 19, Waterloo-street; and Andrew F. Bryden, 147, Bath-street.

CORRESPONDENCE.

Vaulted Norman Churches in England.

SIR,—By "Vaulted Norman Churches in England" Mr. Bilson takes it that I mean churches "which were built within the century or so following the Norman Conquest." I meant very much what Willis and Sharpe and Parker and Freeman and Morris meant by Norman architecture in England; and I think the term is more suggestive and as exact as "or so." Shall we be driven to give up such a nice word as "child" in favour of some such "exact" phrase as "a relatively young person, male or female, as the case may be"? In any case, Mr. Bilson knows that I have decided for myself that there would be a definite loss in giving up such terms as "Norman" and "Early English." They are no more awkward than most other names. Does it shock us, for instance, to say "Late Renaissance" or "Early Middle Ages"? Or must we go on to give up those also?

Mr. Bilson is probably quite right as to the form of the Norman vault over the transept at Pershore; in any case, the vault in the "choir" would have been groined.

Since writing my former notes I have seen two other great Norman churches, Winchester and Norwich. The former, I have no doubt, was intended to have vaulted transepts before the change which is so evident in the clerestory was made. That change was doubtless consequent on giving up the vaulting. Towers which were begun as abutment to the transepts (a magnificent composition) appear to have been given up at the same time. I doubt whether Norwich was ever vaulted or even intended to be vaulted. The arches across the triforium, which occur from end to end—the most regular way—may be part of the "architectural treatment" of a remarkable triforium. In any case, they are different from the quadrant vaults of Gloucester. I wish a section of Pershore transept could be worked out as Mr. Bilson suggests, and, more, that a full paper restoration of one of the three great western churches might be made. I very much wish Mr. Bilson would suggest for us a complete nomenclature for mediæval vaults. I, for one, would try to fall in with his definitions.

W. R. LETHABY.

SIR,—As I was the first to draw Professor Lethaby's attention to the indications of the barrel-vault over the south transept at Pershore, I may perhaps be allowed a few lines in reply to Mr. Bilson's letter in your last issue.

I fully appreciate the care Mr. Bilson takes in the study of the features of twelfth-century architecture, especially with respect to vaulting, but in the case of Pershore he seems not to have given it the time it deserves.

The semicircular toothing of the vault remaining in the north and south walls might taken by itself be the line of the cell of an ordinary ribbed vault, but the absolute proof of the existence of a barrel occurs in the side walls, where in both cases the ashlar facing stops in a horizontal line at the point of the springing of the end toothing. The semicircular line of the vault also passes across the circular turret in the south-west angle.

The straight lines cannot be explained by any reconstruction of the walls above, which remain externally untouched to their original height, and nothing but a barrel could possibly cause the line across the angle turret.

Another point may be noticed. In both side walls is a passage with circular-headed openings towards the church, equally spaced on plan, which could not have belonged to a design intended to have been covered by a vault divided into bays, as is seen by the present three-bayed vault, which ignores their existence and cuts across them irregularly.

I quite sympathise with Mr. Bilson in doubting the existence of a barrel-vault over the clerestory of an aisled church of this magnitude, but the transept at Pershore is neither aisled nor has it a clerestory.

HAROLD BRAKSPEAR.

The Ideal Home Cottage Plan Competition: Single Cottage.

SIR,—It is rather difficult to believe that out of the designs of several hundred competitors not one was judged worthy of a prize. The conditions were fairly simple, the essential ones for the following comments being:—(*a*) "£50 for the best design for a workman's detached cottage." (*b*) "It is suggested that the cost of each cottage need not exceed £200, but it should be kept as low as consistent with substantial construction." (*c*) ". . . The *Daily Mail* reserves the right . . . to withhold the awards should it be the opinion of the judges that a high enough standard of design has not been reached." (*d*) "Mr. Leonard Stokes, Past-President of the Royal Institute of British Architects, is advising the promoters, and will, with two other judges to be nominated by him, award the prizes."

In the Official Catalogue of the Ideal Home Exhibition, where the prize cottages were to be exhibited, the information given regarding this matter is:—"The cost of the single cottage was *limited* to £200 and that of the pair to £175 each. . . . Over 700 competitors entered this admittedly difficult contest. . . . None of the suggestions for the single cottage, however, met with the *full approval* of the judges, Mr. Leonard Stokes, Past-President R.I.B.A.; Mr. E. Guy Dawber, F.R.I.B.A.; and Mr. Raymond Unwin, F.R.I.B.A. In the circumstances, the *Daily Mail* commissioned Mr. Ralph Knott, whose design for the New County Hall recently won in open competition, to embody his own ideas in a cottage for the Exhibition. The cottages stand side by side. . . ," etc.

I should like to note, first, that it is inaccurate to state that the cost was limited to £200. See the conditions above quoted (*b*).

Then both the competitors and the public should, I think, know if the judges, while not, as stated, giving "*full approval*" to any of the designs, were also of opinion that a high enough standard was not reached by any competitor to warrant the award of the prize offered. The conditions of the competition require the latter, and not the former, test. It is rarely that "*full approval*" of any design could be expected. My next point is that it would be supposed by most people that Mr. Knott's cottage was considered by the *Daily Mail* and its advisers to be better than any of the hundreds of designs sent in, but the competitors would, I think, like to have the judge's formal verdict on this point, and also to know if Mr. Knott had the benefit either directly or indirectly of suggestions derived either from the excellencies or the defects of the plans sent in by competitors.

COMPETITOR.

GENERAL NEWS.

Professional Announcement.

The new address of Mr. M. H. Baillie Scott, architect, is Kensington Palace-mansions, De Vere-gardens, London, W. His telephone number is 3675 Kensington.

A Warning to Builders and Others.

A man, purporting to be acting for a leading London bank, is, we are informed, placing bogus orders for various materials and works, and builders and builders' merchants are advised to exercise caution in accepting orders without written confirmation or some other authority.

The Royal Institute of British Architects: Board of Architectural Education.

The Board of Architectural Education of the Royal Institute of British Architects announce that the designs submitted by the following students, who are qualifying for the Final Examination, have been approved:—*Subject X.*—(*a*) "Design for a Classical Villa": Messrs. J. W. Bull, G. W. Callender, A. D. Clare, C. Dickeson, S. Fernyhough, E. Fincham, J. C. Fowell, G. E. Francis, R. Lone, A. E. Maxwell, C. G. Ripley, (Miss) M. Shewen, F. Williamson, W. C. Young. (*b*) "A Pier at a First-Class Watering-Place": Messrs. F. A. Barley, A. J. Wood.

The Royal Sanitary Institute.

The Right Hon. Earl Derby, G.C.V.O., P.C., D.L., has consented to accept the office of President of the Twenty-ninth Congress of the Royal Sanitary Institute, to be held at Blackpool from July 6 to 11, 1914.

University of Birmingham.

A series of lectures are to be given at the University, Edgbaston, on Thursdays, at 11.30 a.m., by Mr. Raymond Unwin, on "Civic Design and Town Planning." Mr. Unwin will also lecture at the University, Edmund-street, on "Social Origins and Economic Bases of Towns" each Thursday at 5 p.m. These lectures will be given during the winter and spring terms.

Lectures on Reinforced Concrete.

A course of six Educational Lectures on "Reinforced Concrete: its Commercial Development and Practical Application," will be given by Mr. H. Kempton Dyson, Secretary of the Concrete Institute, at 5.30 p.m. on the following Wednesdays, November 12, 19, 26; December 3, 10, 17. The lectures will be given in the Lecture Hall of the Concrete Institute at Denison House, 296, Vauxhall Bridge-road, Westminster (close to Victoria Station), and will be illustrated by diagrams, photographs, etc. There is no fee for the course.

St. Paul's Cathedral.

A delay has occurred in the carrying out of the experiment of strengthening the foundations of St. Paul's Cathedral by cementing the subsoil of sand. Arrangements had been made for the experiment on the site of the old Post Office in St. Martin's-le-Grand, but owing to strikes in the North the delivery of the necessary machinery has been delayed. The proposal is to make the test by sinking steel tubes for the purpose, and the effect will be watched by the experts for a few weeks. The work will be put in hand as soon as possible, but the result will probably not be known until the middle of January.—*The Times.*

Leading Contents.

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ILLUSTRATIONS.

Blagdon Hall, Northumberland.

THIS is a scheme under consideration for remodelling and extending the existing house.

Originally the Hall consisted mainly of a simple, well-designed Georgian mansion, which from time to time, as necessity arose, has been added to without regard for future requirements or homogeneity of conception. The idea suggested by our illustration is to clear away practically all these later additions and provide more extensive accommodation in a more convenient form, and with more consideration for an harmonious whole.

The main approach through the park leads to the east front, the south or left-hand pavilion shown on the drawing being the original building, and at present the straggling later additions present a very unsatisfactory appearance, which this new scheme on balanced lines is intended to replace. The west front, which suffers equally from the haphazard method of extension employed, would also be dealt with, and terrace gardens brought into the scheme.

CACKETT & BURNS DICK.

Two Notable Manchester Buildings.

ALMOST every important provincial city in England reflects in the character of its architecture the life-work of one particular man who at some period led the local school then working for the betterment of the city. This assertion is as true of the older cities as of those North-Country villages which came into prominence as towns at the close of the eighteenth century, and which to-day rank as among the greatest cities of the Empire. Dublin owes its dignity to Gandon, Liverpool to Elmes, Newcastle to Grainger, Edinburgh to Robert Adam, and Glasgow to "Greek Thomson." There are countless other examples to be brought forward if proof were needed and if oracular demonstration were to be insisted upon. But for the present purpose a few notes on what might aptly be termed the "Manchester architectural vernacular" will suffice.

The stage is set. The time is the middle of the last century. On one side, grouped in scenic perspective, are marshalled the buildings erected by Harrison, Lane, Barry, Cockerell, and Goodwin; on the other, the mediæval collegiate church, with the churches and houses belonging to the eighteenth century. A voice is heard singing:—

"In Manchester, this famous town,
What great improvements have been made, sirs;
In fifty years 'tis mighty grown
All owing to success in trade, sirs;
For see what mighty buildings rising,
To all beholders most surprising.
The plough and harrow are now forgot, sirs;
'Tis coals and cotton, boil the pot, sirs.
Sing Ned, sing Joe, sing Frank so gaily,
Manchester s improving daily!"

Enter (centre back) a new performer—Edward Walters, by special permission of Richard Cobden—and thus the Italian mode was begun in Manchester.

Edward Walters was the son of John Walters, an architect who flourished in London at the beginning of the nineteenth century, designing, in 1809, the Auction Mart in Bartholomew-lane, and, in 1818, St. Paul's Church, Shadwell. John Walters died in 1821, and the son—then only thirteen years of age—entered the office of his father's assistant, Isaac Clarke, from hence assisting Lewis Vulliamy, and eventually Mr. (afterwards Sir) John Rennie, by whom he was sent to Constantinople to act as architect to the Small Arms Factory which Rennie built for the Sultan of Turkey. Before leaving Constantinople in 1836 he formed the acquaintance of Richard Cobden, who became his lifelong patron. At Constantinople he also made the acquaintance of Mr. W. H. Barlow, the engineer, which meeting ripened into friendship; and in 1860 he designed several of the stations between Ambergate and Manchester for his friend. Although Walters came to Manchester just at the time when the well-known architect Lane was retiring from practice, and had the support of such an influential patron as Cobden, his early struggles were those of an unknown man striving for success. Walters inherited from his father an instinct for dignified architecture, and this led him to follow the "Palazzo" model which Barry had previously introduced with such success for the Pall Mall clubs. One of his first important works was a warehouse in Portland-street, Manchester. At this time there arose a speculative mania for erecting large warehouses, and Walters had the ability to see that such utilitarian structures were capable of being ennobled by the attributes of art. He considered that the conditions governing the design of such buildings were very favourable as aids to fine architectural effect; in particular, there was an opportunity for breadth and repose.

The characteristics of Walter's buildings can be summarised in the following terms:—The horizontal and vertical subdivisions are well proportioned, the cornices are fine crowning features, and the doorways are rich in well-considered ornamentation, which is never a travesty of an historical prototype. In 1853 came the opportunity that Walters needed to demonstrate his ability to undertake work of the first order, namely, the New Free Trade Hall. The site for the new building was in Peter-street, practically on the same ground as that of the disastrous "Peterloo" meeting of 1819. The building was completed and opened in 1856. The façade to Peter-street is 159 ft. long and 75 ft. in height to the top of the balustrade (see the pen-and-ink drawing of Mr. Hanslip Fletcher). Following this notable achievement came work of equal importance, including Warrington Public Hall and the Manchester and Salford Bank in Moseley-street. The design of the latter building is masterly in every regard, the gigantic doorway connecting the two blocks in Moseley-street, forming a monumental composition which is unequalled in the North of England. The offices of the Liverpool, London, and Globe Insurance Company, in King-street, were completed in the same year. Walters competed for the new Assize Courts, and retired from practice in 1865, dying at Brighton on January 22, 1872.

The other Classic building which ranks next in merit to the Free Trade Hall is the Post Office, which is hidden away between Brown-street and Spring-gardens.

This public building, which is perhaps the finest of its class in the United Kingdom, was completed as recently as 1884 from the drawings of the late James Williams, some time architect to the Office of Works. The design of the Post Office is consistent in all four elevations; the accessory details are carried out with spirited regard for the dignity of the main building, and moreover the character is correct. The elevation to Spring-gardens is grandiose (see Mr. Fletcher's sketch), but the charm of the building lies in the simple, unaffected breadth of the front to Brown-street. This front, with its excellent detail and refined treatment of masonry, should be studied by students with a reverence akin to that usually bestowed on buildings belonging to a more remote period.

Manchester to many is a city to escape from; to others it is a place of "Piranesian rhetoric." The neighbourhood of the eighteenth-century Gothic church of St. John's, off Deansgate, with the attendant Georgian village, is a place of delight—a living and real etching. There are old brick warehouses on the banks of the Irwell; steel lattice girder bridges cross and recross streets which once housed prosperous cotton-spinners; glimpses of fearful depths are caught from the railway-carriage windows, a restless, nervous, humming activity, black and wonderful, extending in every direction. Yet in the midst of such complexity the Classic architecture of the last century strikes one as being refreshing and appropriate, whether encountered in the huge warehouses known throughout the world as peculiar to Manchester, in the Greek terrace houses fronting the roads to old Trafford or Ardwick, or in the stately buildings of Moseley-street and the Italian railway-stations. The tradition is a true and a strong one. Left to itself, it will outlive the petty tendencies which disfigure the modern architecture of the City; strengthened by the endeavours of cultured men, an extension of its principles presages a way out of the architectural maze.

Finchley Public Baths.

THIS design was the one placed first by the assessor, Mr. H. W. Wills, F.R.I.B.A., in a recent limited competition. The accommodation provided includes a covered swimming-bath, with a pond 75 ft. long and 25 ft. wide, twelve slipper-baths, and a large open-air swimming-bath, 165 ft. long by 56 ft. wide. Externally the walls will be faced with red bricks relieved with stone, and the roofs covered with plain tiles. The architect is Mr. A. W. S. Cross.

Isolation Hospital, Amersham.

THIS is the design selected by the assessor, Mr. Newberry, in a limited competition. The first portion of the scheme was to cost £7,000 and the entire scheme £91,600. The site adjoins the Union Workhouse. The exact details of the scheme to be executed have not yet been settled.

MEETINGS.

FRIDAY, OCTOBER 24.

Architectural Craftsmen's Society, Glasgow.—Mr. Robert Park on "The Execution of Reinforced Concrete Work."

Royal Sanitary Institute.—Mr. W. Scott on "Details of Plumbers' Work." 7 p.m.

Institution of Mechanical Engineers.—Paper by Mr. R. B. Creak on "Modern Flour Milling Machinery." 8 p.m.

MONDAY, OCTOBER 27.

Architectural Association.—Annual general meeting. Presidential address, by Mr. W. Curtis Green, and distribution of prizes. 8 p.m.

University of London (Victoria and Albert Museum).—Mr. Banister Fletcher on "The Early Renaissance in North Italy." 5 p.m.

Royal Sanitary Institute.—Mr. W. C. Tyndale on "Calculations, Measurements, and Plans and Sections." 7 p.m.

TUESDAY, OCTOBER 28.

University of London (British Museum).—Mr. Kaines Smith on "Mycenæ, the Heir of Crete." 4.30 p.m.

British School at Athens (Burlington House).—Special meeting, the Right Hon. James Bryce, O.M., presiding. The Director (Mr. R. M. Dawkins) on "The Excavations at the Kamares Cave, Crete." 5 p.m.

WEDNESDAY, OCTOBER 29.

Royal Sanitary Institute.—Mr. F. Osborne Smith on "Sanitary Appliances." 7 p.m.

THURSDAY, OCTOBER 30.

Chadwick Public Lectures (at the University, Bristol).—Dr. Leonard Hill on "The Physiological Principles of Heating and Ventilating." 5 p.m.

University of London (Victoria and Albert Museum).—Mr Kaines Smith on "Art and Imagination." 3.30 p.m.

University of London (British Museum).—Mr. Banister Fletcher on "Western Asiatic Architecture." 4.30 p.m.

FRIDAY, OCTOBER 31.

Royal Sanitary Institute.—Mr. F. Osborne Smith on "House Drainage." 7 p.m.

FIFTY YEARS AGO.

From the *Builder* of October 24, 1863.

The Decoration of St. Paul's Cathedral.

SIR,—In an article in the *Builder* of October 10 inst., it is observed, with reference to the decorations of St. Paul's: "What is done is timidly poor and sadly ineffective, and we fear that what is intended, so far as we can learn, will be equally so. St. Paul's needs colour and fine art." Your kind sympathy in this national work calls for a short explanation on these heads.

No one can feel more strongly than those engaged on the work that what is done is poor and ineffective, if considered by itself; but this is not necessarily a fault in a work in its commencement. I beg, moreover, to assure you that the most earnest desire is felt for colour and fine art, but such works need time and funds for their achievement.

F. C. PENROSE.

St. Paul's Chapter House.

*** We doubt if Mr. Penrose would be entirely pleased with what has been done since his time in the decoration of the Cathedral.—ED.

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PROPOSED ISOLATION HOSPITAL: AMERSHAM:

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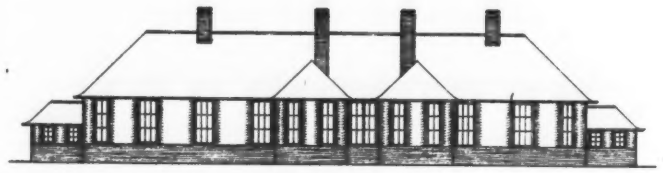
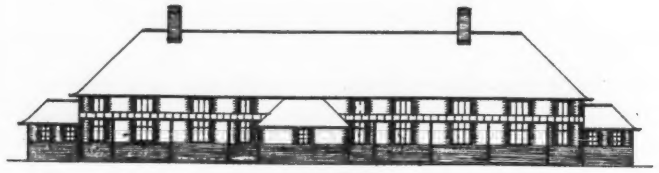


EAST ELEVATION:



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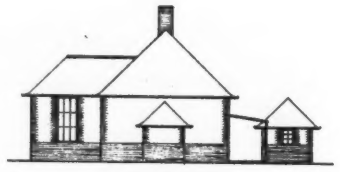

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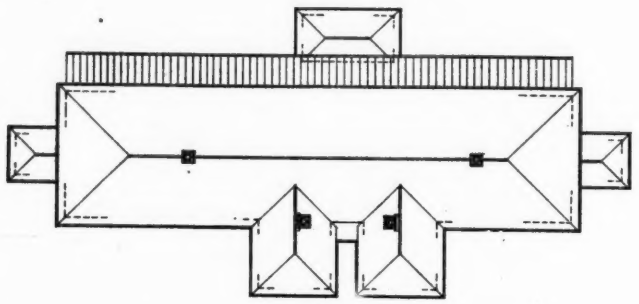

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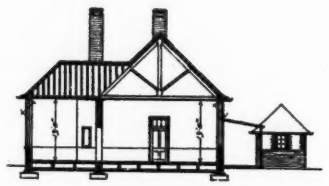

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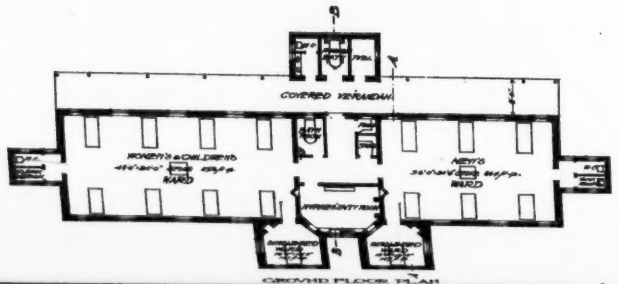


GROUND FLOOR PLAN:

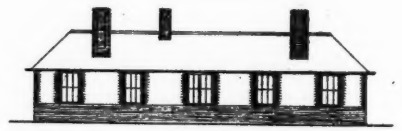
SECTION B-B:

OBSERVATION WARDS BLOCK:

EAST ELEVATION

SOUTH ELEVATION:

SECTION A-A:



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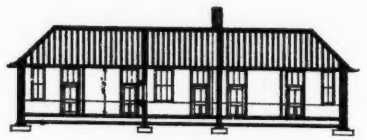

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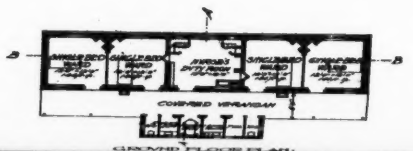

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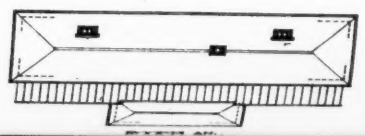
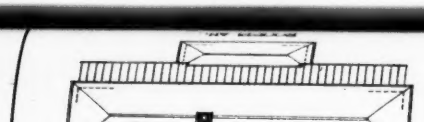
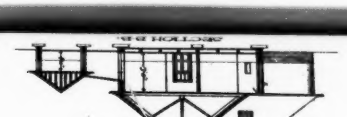


END ELEVATION:





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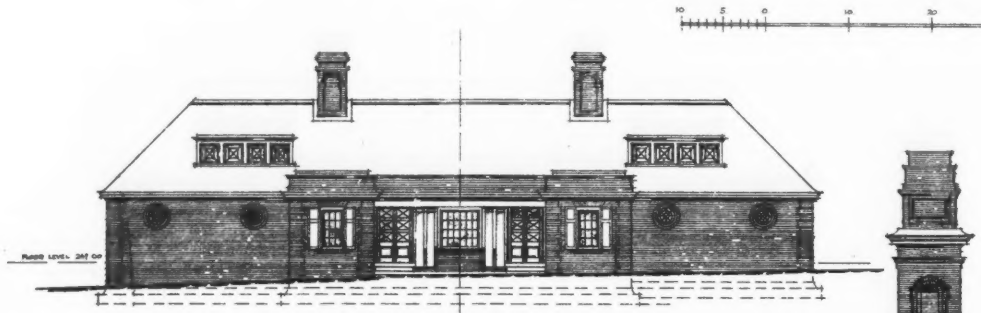
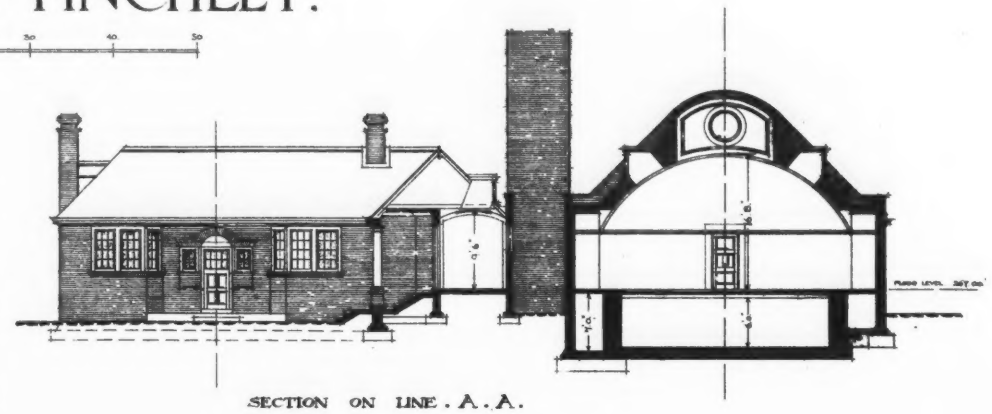


ELEVATION TO SQUIRES LANE.



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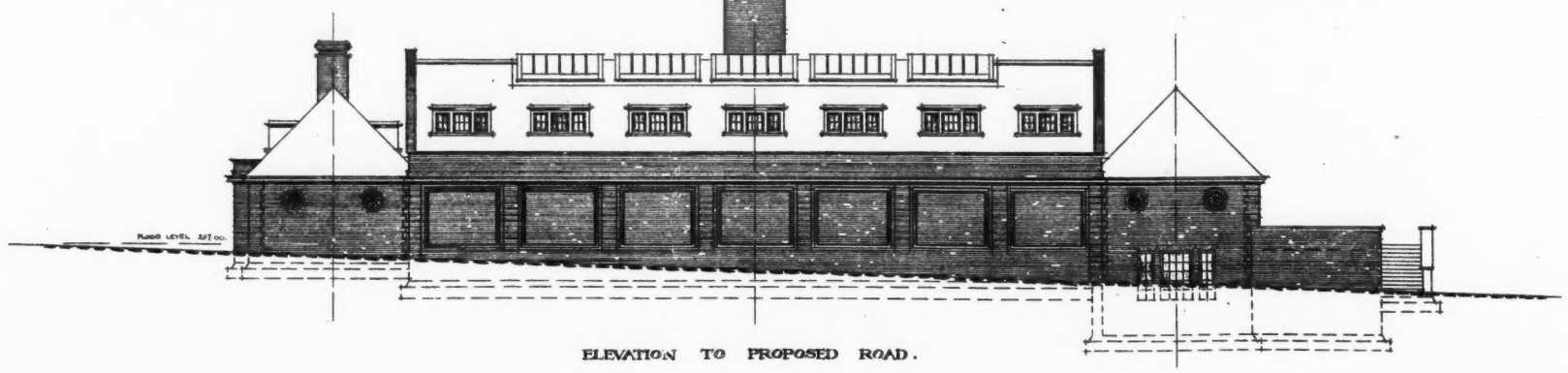
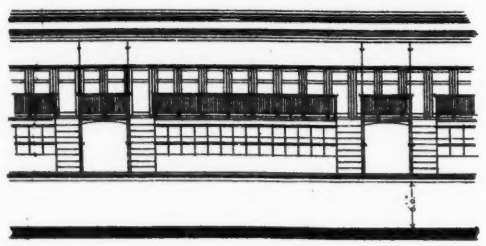


ELEVATION TO PROPOSED ROAD.



OPEN AIR BATH
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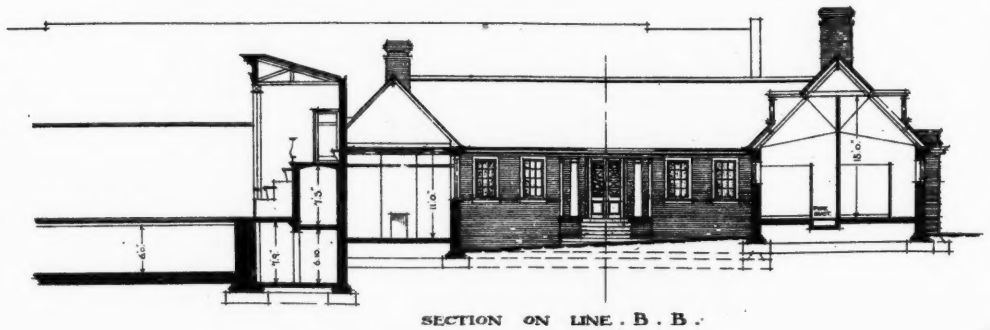

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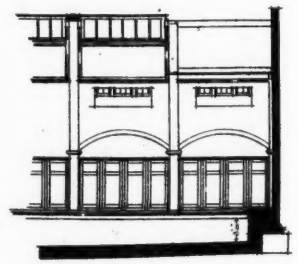

COVERED BATH
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PUBLIC BATHS, FINCHLEY.—Selected Design by Mr. A. W. S. Cross, F.R.I.B.A., Architect.

Martin Hood & Larkin, Ltd, London, W.C.

PUBLIC BATHS, FINCHLEY.—Selected Design by Mr. A. W. S. Cross, F.R.I.B.A., Architect.

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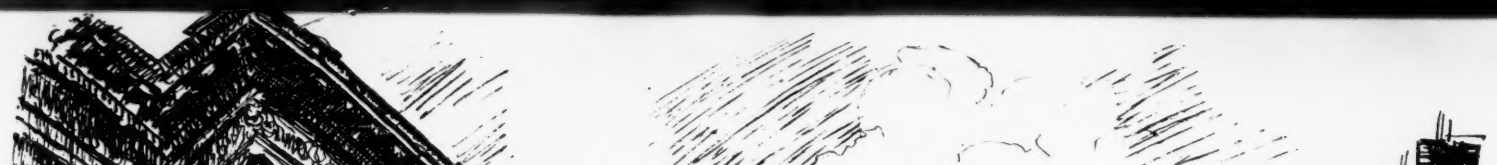
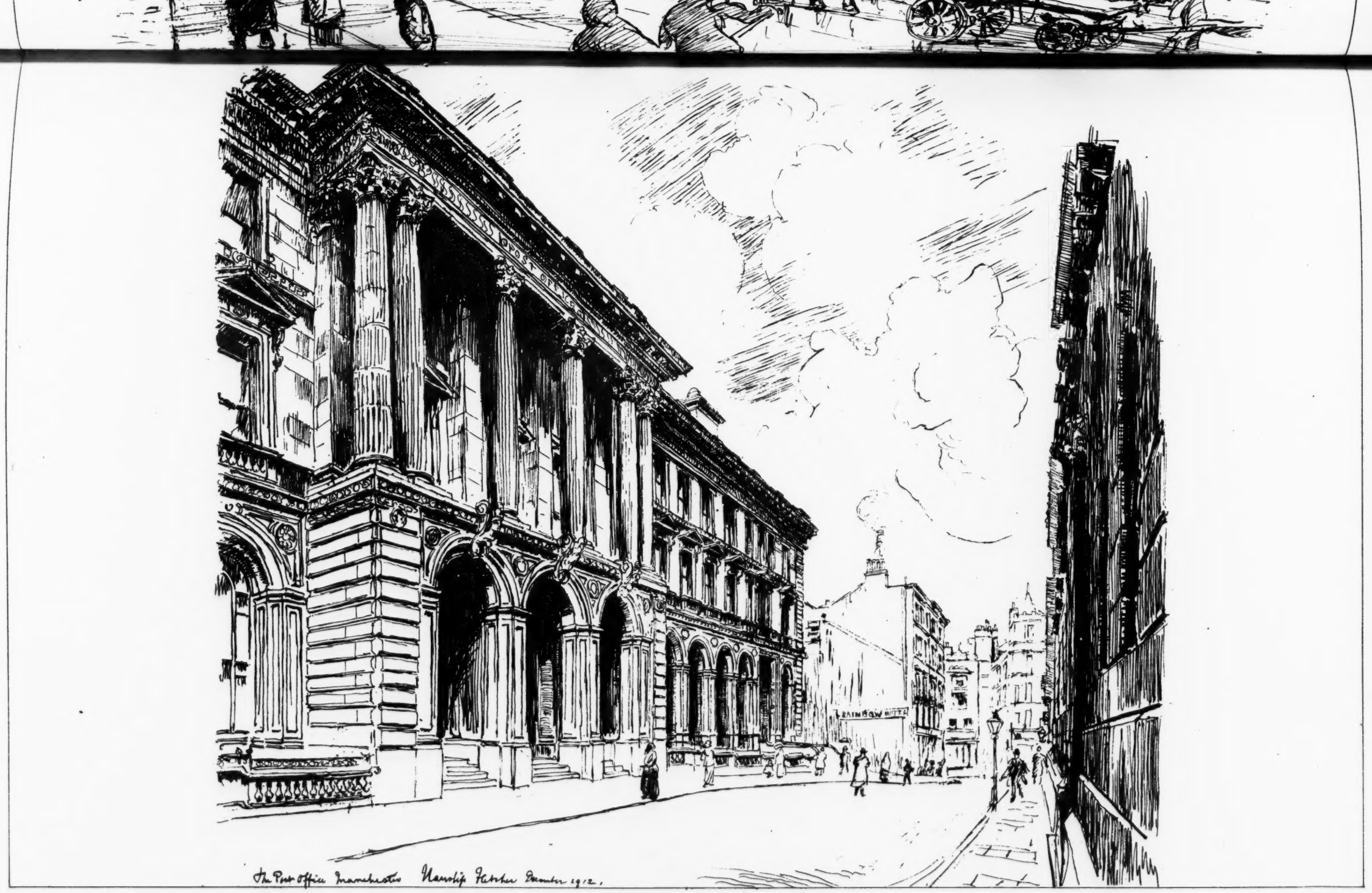


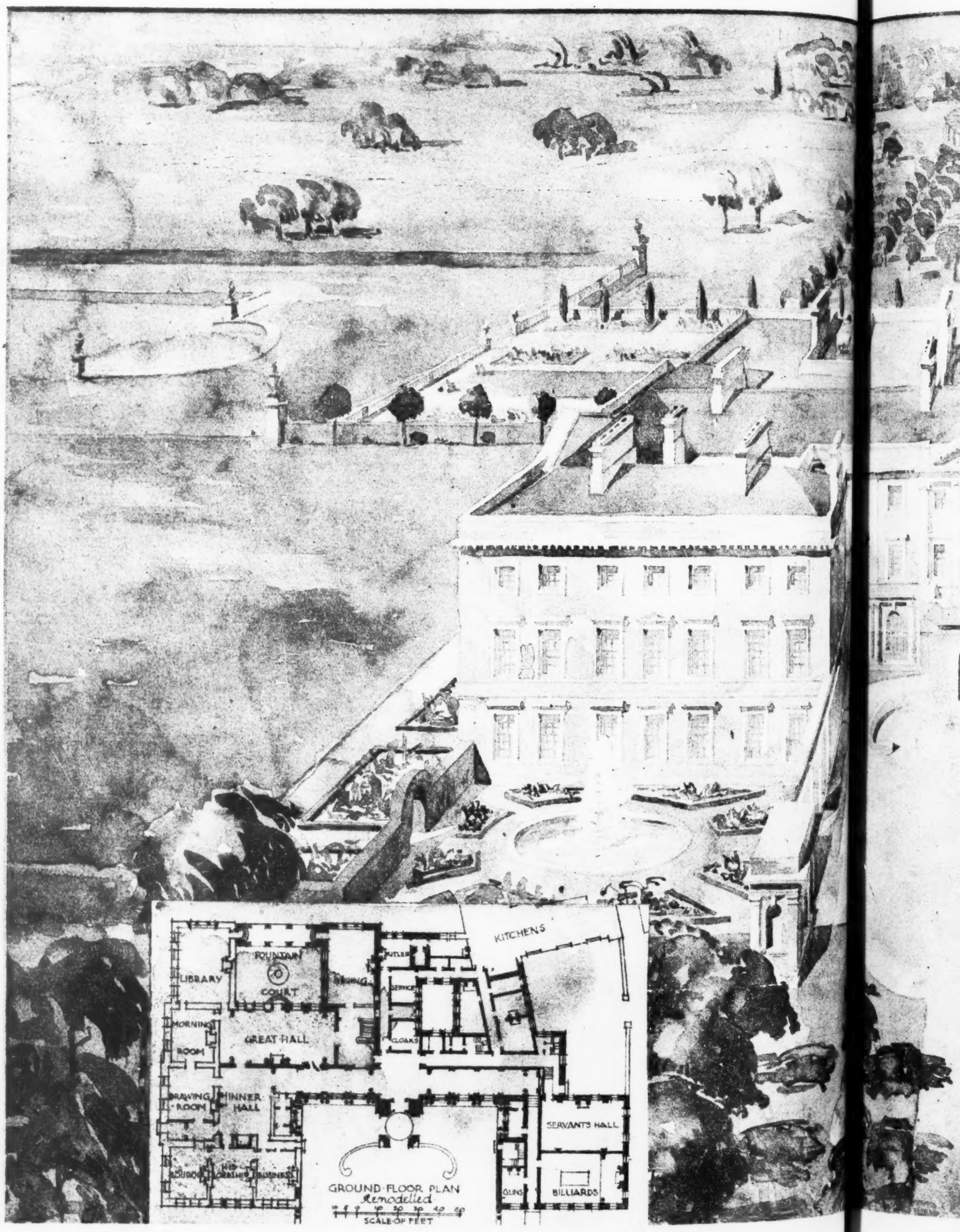


The Post Office Manchester Harold Fletcher December 1912.

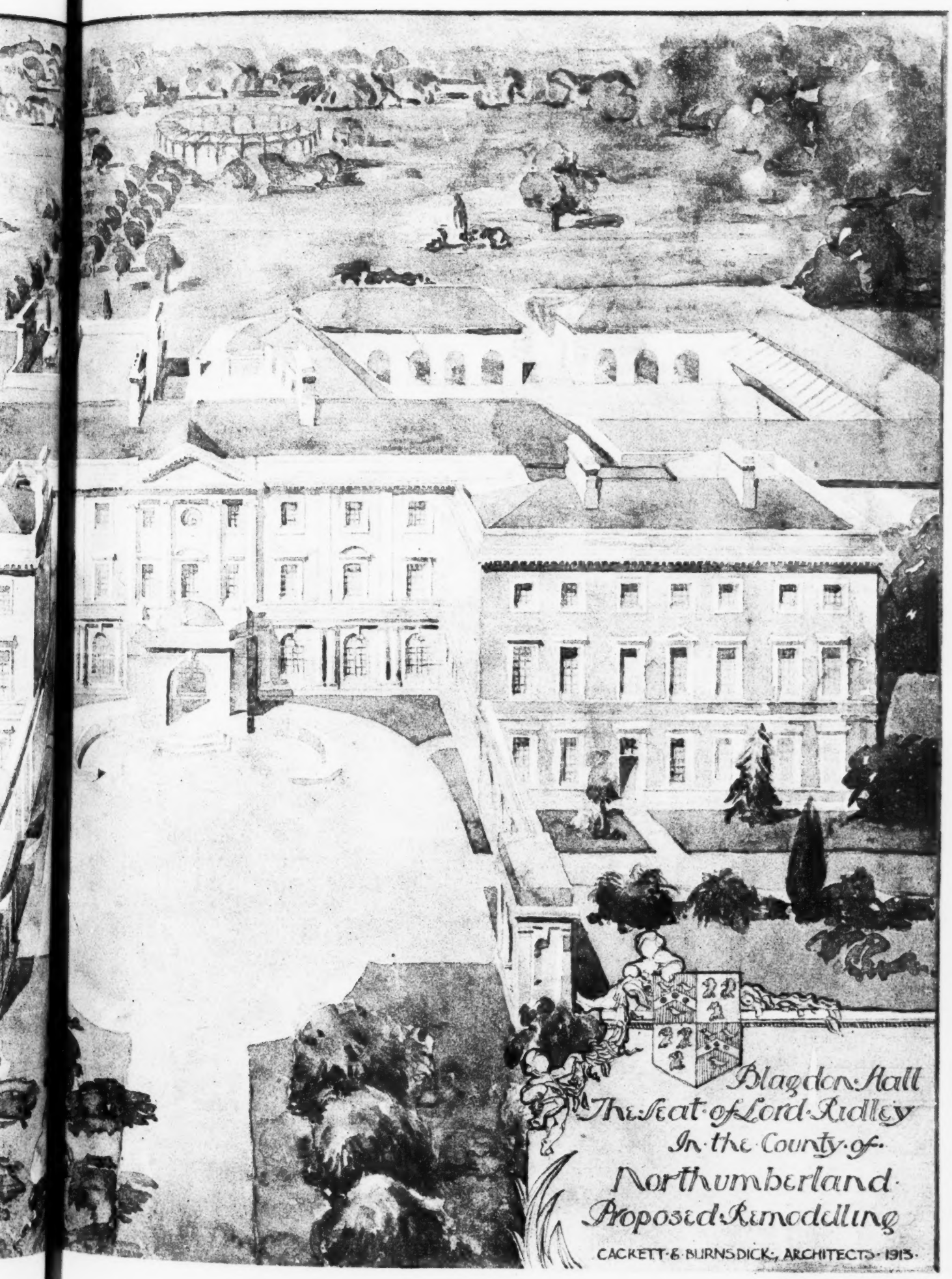
MONUMENTAL ARCHITECTURE IN MANCHESTER.

THE FREE TRADE HALL.—EDWARD WALTERS, ARCHITECT. THE GENERAL POST OFFICE.—JAMES WILLIAMS, ARCHITECT.

Martin Hood & Larkin, lith, London, W.C.



Royal Academy Exhibition, 1913.



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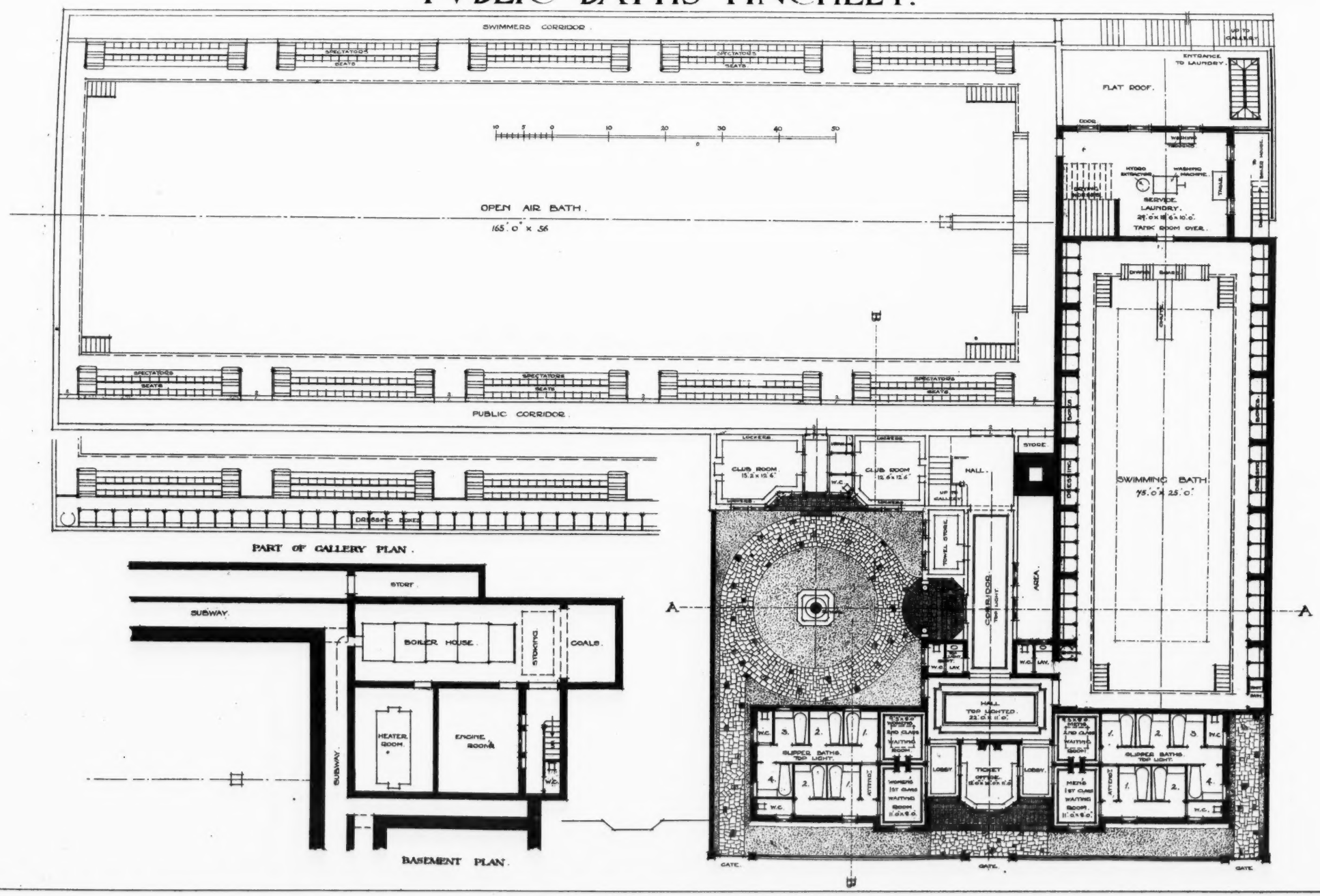

PUBLIC BATHS, FINCHLEY.—SELECTED DESIGN BY Mr. A. W. S. CROSS, F.R.I.B.A., ARCHITECT.

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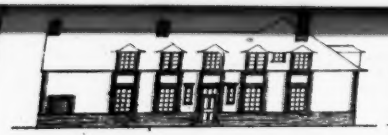
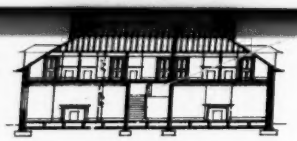
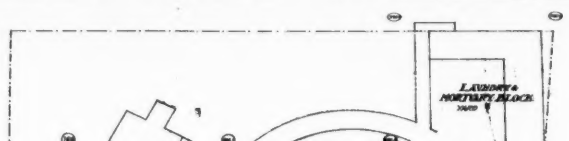


SOUTH WEST ELEVATION.



SECTION A-A.



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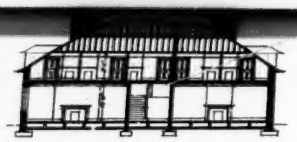
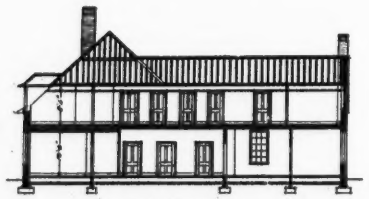
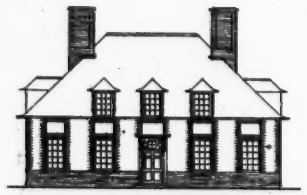


SECTION A-A.

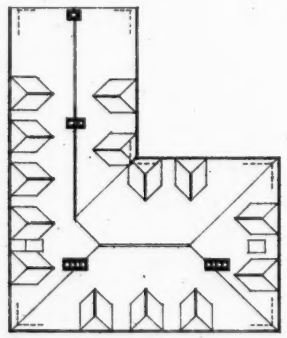
NORTH WEST ELEVATION.



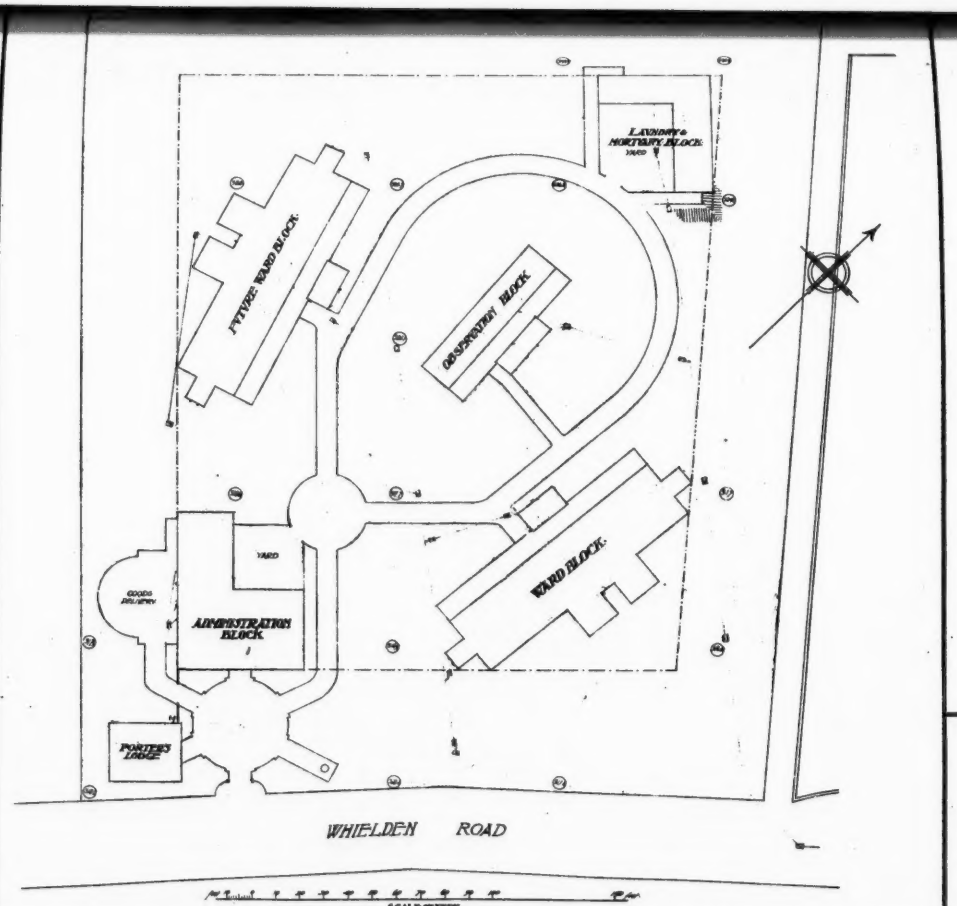
SECTION B-B.



SOUTH EAST ELEVATION



ROOF PLAN



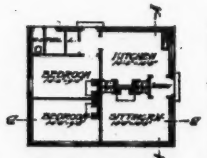
SECTION A-A.

S.W. ELEVATION.

SECTION B-B.

N.E. ELEVATION.

S.E. ELEVATION.



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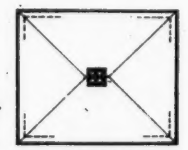
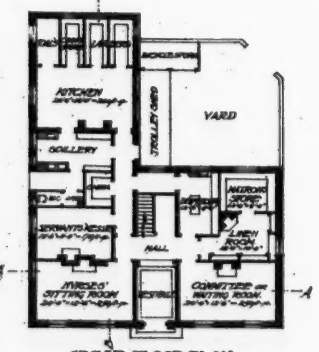


ROOF PLAN.

LAUNDRY & MORTUARY BLOCK.

SECTION A-A.



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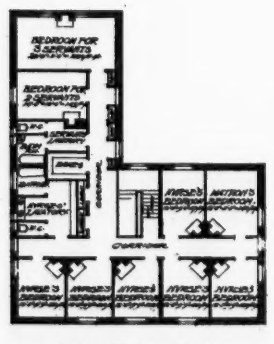
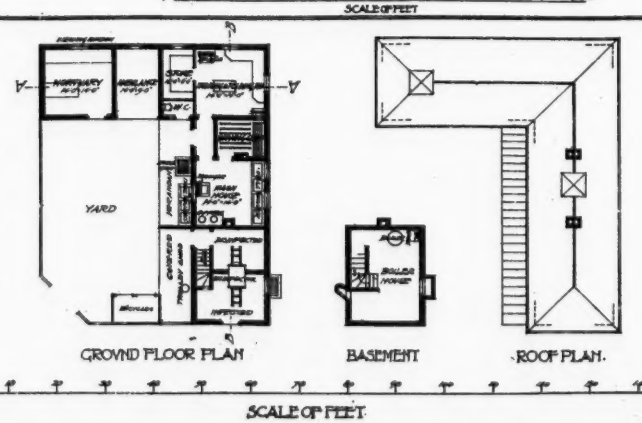


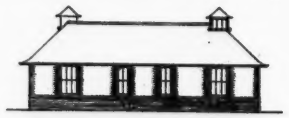
FIRST FLOOR PLAN.



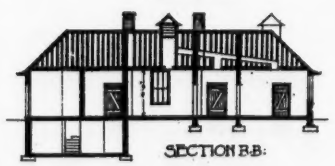
GROUND FLOOR PLAN

BASEMENT

ROOF PLAN.



N.W. ELEVATION.



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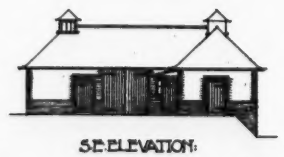

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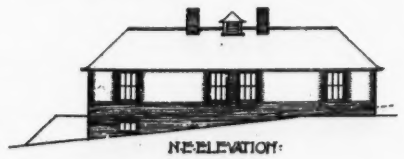

N.E. ELEVATION.

AMERSHAM ISOLATION HOSPITAL.—Selected Design by Messrs. Wills, Anderson & Kaula, Architects.

Martin Hood & Larkin Lith. London, W.C.

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LIGHTING, HEATING, AND SANITARY ENGINEERING SECTION.

ELECTRICITY FOR COUNTRY HOUSES:

1.—THE PLANT.

WHEN electric light first became a domestic possibility it was naturally somewhat of a luxury, on account of the high cost of all the various apparatus necessary for its production. Hence the private plant in the country houses of the rich was an early institution after the invention of the incandescent electric lamp and the accumulator. The plant of those days was, however, a very different thing from that which is installed now, and probably none of the earlier private plants are any longer in existence. There is no doubt that a good many of these were steam-driven sets—at any rate for very large mansions—and that the Willans engine found its place in many a large castle. Other residences, situated near hill or mountain streams, were provided with hydro-electric plants—that is, small water turbines as prime movers; and, of course, many such are still at work, and others would be installed were it not that in all probability the money to be sunk for the structural and engineering arrangements would considerably exceed that required for a modern internal combustion engine.

As electric light became more popular for country houses the demand for gas and oil engines of smaller sizes increased, and a very large business was done with these. Where a house was situated near the gas mains of the local town gas-engines were nearly always employed, whilst in practically every other case oil-engines were used. The oil-engine of twenty years ago was a very different type of machine from that now offered for country house plants. It is not our object to go deeply into technical details in these articles, so it will suffice to say that the engines of that day were cumbersome, required a lot of attention, and burned paraffin oil in a rather uneconomical manner. Gas-engines, too, were by no means so economical as now, nor was either engine produced in the small sizes in which they are to be had to-day, because the various current-consuming devices were all more inefficient. The art of designing dynamos was in its infancy, and small machines of the 2-pole type were employed, which ran very well, but inefficiently. Accumulator batteries had to be large to cope with the relatively large amount of current required, and were also inefficient and suffered considerable annual depreciation. Finally, the incandescent electric lamp consumed at least 4 watts per candle-power, and often more, and was actually, as it is now, the means of dictating the size of generating plant and accumulator battery.

With the advent of the metal filament lamp, however, everything underwent a change, although this took place gradually. Simultaneously with these new lamps the petrol engine appeared on the scene to meet the demand for a smaller high-speed prime mover, and this caused makers of gas and paraffin engines to design smaller and more efficient patterns in order to meet this one form of competition. Generally speaking, the metal filament lamp may be said to consume about one-third the amount of current required by the old carbon filament lamp for equal light, and although its initial price was five shillings, and its present price is two shillings compared with the one shilling or less of the carbon filament lamp, it holds its own practically everywhere on account of its reduced current consumption. It is, therefore, clear that with generating plants of only about one-third the original capacity the number of country house installations has largely increased, owing to the reduced cost of initial outlay, running, and maintenance, whilst the almost miniature engines which have been put on the market of late have brought electricity within the means of the owners of small villas and even cottages. In addition, the cost of wiring has been reduced by new methods which will be touched on in another article, so that, with the exception of the initial cost of the lamps, everything is in favour of the house-owner compared with the old days, and even the extra cost of lamps is more than compensated for by the saving in current, and therefore in fuel.

In regard to the choice of a suitable engine for country house lighting, a great deal depends on individual requirements and local conditions. The two chief factors are the size of plant required and the nature of the environment. For instance, the amount of lighting may be small, but the user may require current for electrical cooking, heating, and power, so that the plant might actually have to be a fairly large one even for a small house. Then there may be water power available, or wood or coal may be very cheap, whilst gas or oil may be expensive, or there may be no gas at all. Speaking generally, the following suggestions may be offered for determining the choice of a plant:—

(1) For houses requiring a small amount of current:

(*a*) If situated in the country, a paraffin or petrol set.

(*b*) If situated near a town with cheap gas, a gas-engine set.

(2) For houses requiring a large amount of current:—

(*a*) If situated in the country where there is water power, a hydro-electric set.

(*b*) Ditto, where coal or wood is cheap, a steam set (particularly if the steam can also be used for heating and laundry purposes).

(*c*) If situated anywhere else, a suction-gas set.

These suggestions are offered entirely on the basis of economy in working, but there may be reasons for modifying them. For instance, the initial cost of obtaining water power may not warrant the installing of such a plant, however cheap to operate, or there may be advantages in using suction gas or paraffin even where wood or coal are cheap. However, everything must be taken thoroughly into consideration if running economy is an object; but where it is not it is much better to adopt the kind of plant that best meets all other requirements and that gives as little trouble as possible. As economy is the chief consideration in these days of democratic legislation, and the man with the country house and estate is likely soon to have additional burdens put on his shoulders, we shall assume for the purposes of this article that a water power or steam plant is too expensive to install and to maintain, and confine ourselves to the consideration of petrol, paraffin, gas, and suction-gas plants. The advantages of these plants over hydro-electric and steam plants is that they all occupy very little space, require much less initial expense, and can generally be managed without additional labour. There is still a very prevalent idea that an electric light plant costs several hundreds of pounds, and an extra man to work it, and no doubt this serves to frighten many people and to prevent them even considering the question of an electric light plant. These things may have been true some years ago, for the reasons already given, but the modern plants have been so well standardised and designed on such compact and almost fool-proof lines that small petrol sets can be obtained complete with battery, switchboard, and wiring for less than £100 for the lighting of bungalows, shooting boxes, etc.

All these country house plants comprise essentially three main parts—the generating plant, the battery, and the switchboard—and they require very little in the way of housing. Any suitable outhouse will do for the smallest sets, the space for the battery being partitioned off in order to prevent the sulphuric acid fumes from damaging the generating plant. Where there is no outhouse available, or where larger sets are installed, space may be found in a basement, or it is necessary to build a special housing. The object of the battery of accumulators is that the engine and dynamo may be run during the daytime, where there is a gardener or similar person about who can give them the necessary small attention required. The dynamo charges the battery during this period, and the battery is used at night to supply the necessary current for the lamps. Arrangements are generally made for supplying the lights direct from the dynamo, if required, or for running the dynamo and battery direct on to the lights at night if there is an extra load.

Generally, however, the battery is quite capable of meeting the average demand, and often it is only necessary to charge the battery every other day. Each cell of the battery requires 2·5 volts to charge it, and discharges at about 2 volts down to 1·8 volts. If therefore the voltage of the lamps is 50 volts, 25 cells are required, and the dynamo must be capable of regulation from 50 to about 63 volts. As the voltage of the battery falls to 1·8 volts per cell, a few extra cells are provided, which are thrown in one by one during the discharge, and for this reason the voltage of the dynamo must be higher by the amount of these extra regulating cells. For instance, to supply 50 volts at 1·8 volts per cell twenty-eight cells will be required, and by the time all are working it is time to charge the battery again. There is some loss of energy due to the charging of the cells, but this is compensated for by the additional convenience of the battery and the absence of necessity of running the engine and dynamo at night. The engine and dynamo are usually direct coupled on a common bedplate, which occupies very little room, and the other accessories of the plant comprise an oil tank and a water tank and pipe work for circulating cooling water round the cylinder or cylinders; but these parts are quite simple and do not present any difficulties. The switchboard is generally placed in the engine-room, and consists of a slab of marble or slate, mounted with the necessary measuring instruments, regulating and controlling apparatus for charging and discharging. The battery comprises a series of glass boxes on wooden stands, generally arranged in two tiers.

Petrol-electric sets are, as previously stated, recommended for small houses where only a few lights are required, as, although the fuel is more expensive than paraffin, less of it is required; the plant is very compact and requires no attention except starting, stopping, and occasional lubrication and inspection. It may be reckoned that a petrol-driven plant for fifty lamps costs about £12 per annum, including lamp renewals, petrol, and lubricating oil, etc. For those who do not wish to use petrol as a fuel, direct-coupled paraffin engines can be had. These are generally horizontal, and run at a low speed, but vertical high-speed engines for larger outputs are also supplied. Most of these paraffin engines use American oil, but Russian oil is preferable, because it is cleaner. Ignition at starting is effected by applying a blow-lamp, as with gas-engines, and automatic ignition is afterwards maintained by the waste gases heating the ignition tube. In the case of the vertical direct-coupled sets the engine may be started up on petrol and changed on to paraffin afterwards, and the ignition is high-tension electric. Direct-coupled paraffin sets are, however, relatively expensive, and if there is room the dynamo should be belt driven, so as to obtain a higher speed and therefore a cheaper dynamo. All oil-engines, like gas-engines, require to be revolved on starting. This is usually effected by hand, but arrangements can often be made on the switchboard to run the dynamo as a motor and to start up the engine in that manner. This arrangement is only useful for large sets.

Gas-engines are only recommended when the price of gas is 2s. 6d. per 1,000 cub. ft. or less. They have all the advantages of oil-engines without the disadvantages of ordering, or carriage on, fuel, and may be said generally to require even less attention and cleaning. They can now be obtained in quite small sizes for direct coupling to the dynamo, although, like oil-engines, it is cheaper to have a belt drive if space is available.

One of the recent developments of internal combustion plants for country house lighting is the automatic plant. These are generally

made for larger installations. They are self-starting, regulating, and stopping, the necessary controlling apparatus being mounted on the switchboard. Naturally they require occasional oiling and supervision, whilst with oil and gas cleaning is necessary periodically; but this work can be done when convenient, and the plants will run for long periods under suitable conditions without attention, because the engine starts by itself when the battery is discharged, and stops when the battery is fully charged. Of course, such plants are more expensive than the hand-controlled plants, but they present such advantages in other respects that they are rapidly coming into favour.

Finally, there is the suction-gas system. This has been evolved from the original producer gas plant, which has been employed of late years in large numbers of installations of any size, particularly for small villages. The gas for actuating the engine is generated by passing steam over a hot fire of coke or anthracite, preferably the latter, and although anthracite is expensive, such a little is used that the question of fuel is of small account. Formerly this gas was stored in a gas-holder or supplied under pressure to the engine, but in the suction system the engine is coupled direct to the producer, and each stroke makes a small quantity of gas, which is sucked into the combustion chamber. Hence, the gas-holder is dispensed with, and the amount of gas produced is practically in proportion to the work done, as when the engine stops the production of gas ceases also. A plant of this kind, if worked to best advantage, is the most economical system known for installations up to a certain capacity—at any rate, equal to the largest country house installation that may be called for. Those desirous of installing a country house electric-lighting plant are strongly advised not to purchase the parts separately or from someone who is not used to this kind of work, but to take the advice of a firm of repute, capable of supplying and erecting the whole plant and taking full responsibility for its efficient working. There are several firms of this kind who standardise complete ranges of plants for all classes of internal combustion engines, including the necessary accumulator battery, switchboard, and all accessories.

THE SCHOOL OF THE FUTURE:

ITS LIGHTING, HEATING, AND VENTILATION.

THE following is the greater part of a paper by Messrs. Septimus Warwick, F.R.I.B.A., and Austen Hall, F.R.I.B.A., read at the Conference of Educationists at the National Gas Congress and Exhibition on Saturday, October 11:—

"Our subject, even as limited by its subtitle, is one which it is impossible to treat fully within the possible dimensions of a conference paper. The magnitude of the subject and its vital importance are alike too great to warrant any superficial treatment of the whole. . . .

Here, as elsewhere, prevention is better than cure. It is a very expensive matter to remedy blunders concerning illumination, heating, and ventilation after a school has been built and fitted up. This is especially true in regard to daylight illumination, it may be noted, for one cannot easily take a building up and turn it round so as to utilise the sunlight to better advantage. We are all, in these days, paying increasing attention to preventive medicine. Let us also give close attention to preventive hygiene and preventive common sense. In these matters there is obvious necessity for close co-operation between the architects who have to plan the buildings, the medical officers who are responsible for the health of those who will occupy them, and the committees and teachers who are responsible for the success of the work carried on therein, using the word "success" in its broadest and truest meaning.

There is another body with which the architect is now able to consult in these and similar matters, and that is the Illuminating Engineering Society, which promises to be a most useful consultative body, and is doing valuable work in calling attention to the greater need for the application of scientific principles to the illumination of our homes, schools, factories, and other premises. We should specially draw attention, in connection with our subject, to the work which the Society is carrying out in investigating the principles of illumination as applied to the lighting of schools, to which we shall have occasion to make further reference presently.

The impossibility of dealing with our subject in all its aspects being obvious, we propose now only to treat of one or two broad principles of illumination, heating, and ventilation; and then to point out briefly in what way gas can assist in the practical and economical application of these principles where a supply of gas is available and the authorities decide upon its use. The acutely controversial questions as between gas and its rivals we propose to leave to the protagonists in the various camps to fight out for the benefit of the consuming public. We will not quote the old proverb as to the disagreement between thieves, but in milder language point out the advantage to the public of competition between those who have in their hands the supply of public necessities.

Our dealing with gas in this paper must not be interpreted as necessarily committing us to an advocacy of its use in every circumstance and case. We believe that there is a place for all the various rival illuminants in the service of the community, and we are only concerned here with considering how gas can best be utilised as light and fuel where it is adopted for those purposes. At the same time, as members of a profession keenly interested in the preservation of buildings from defilement and destruction, we should like to express our appreciation of the value to the community of the steady purification of the atmosphere that is accruing through the increased use of gas for fuel, and to welcome the great improvement in the design of gas fires in recent years, which makes it possible for a self-respecting architect to recommend the installation of gas fires in the most æsthetic surroundings.

Lighting.

What are the points to which special attention needs to be given when the artificial lighting of a school is under consideration? First of all, we take it that it is necessary to ensure that the lighting is adequate but not excessive; and that the sources of light are placed so as to secure a maximum of effective result with a minimum of cost, with an absence of glare, and with a very careful avoidance both of inconvenient shadows and exposure of the eye of teacher or scholar to direct rays of intense light.

Here it may be well to call attention to the great importance, from the point of view of eyesight, of the comparative intrinsic brilliancy of different sources of light, a subject with which Professor Silvanus Thompson will no doubt have dealt in a far more able and scientific manner than we are able to do. We will, therefore, only remark that there is a general consensus of opinion that intensely bright rays of light falling upon the retina of the eye set up great local excitement of the nerves of the eye and produce serious eye-strain, and that this is in proportion to the relation which the power of the light produced bears to the area of the surface from which it is produced. The effect upon the eye has been described, not inaptly, as a "whip-lash" effect.

This trouble is intensified if the sources of light are hung (as they all too frequently are) in the direct line of vision of the scholars, as, for example, when bare lights are found to be hung so as to fall within the vision of the scholars when looking at the blackboard. This not only damages the sight, but considerably reduces the value of the illumination provided. Professor Ashe, in the *Electrical World* for February 25, 1909, stated that an unshaded 16-c.-p. carbon filament electric lamp in the line of vision decreased by 30 per cent. one's ability to read by a given amount of light.

It is therefore of great importance that sources of light should not be fixed so as to come within the line of normal vision of scholars when they are looking either at the teacher or at the blackboard, and that all sources of light should be so designed as to have as large a diffusing area as possible. This can be easily obtained by the use of opal, frosted, or cut-glass globes; but this, of course, tends to reduce the amount of light obtained for a given consumption of lighting energy, and the principle is found to be most generally disregarded where the more expensive illuminants are in use. This is a point to which we think it is impossible for too much attention to be given if the eyesight of children is to be protected during the period of their education.

The particular matters which we wish to emphasise are the necessity for realising the effect upon both daylight and artificial illumination of the colouring schemes adopted in the decoration of schools. One sometimes finds classrooms painted with high and very dark dados, having an almost total absence of reflecting power; and those interested in this subject may be referred to the section in this Exhibition where will be found a number of cubicles, lined with different coloured papers, but each illuminated with a similar unit of light, demonstrating the different absorptive powers of various colours upon light.

The other principal point which we wish to emphasise is the necessity for arranging the sources of light, whether natural or artificial, so that scholars do not have to sit at unnatural angles in order to avoid working in their own shadows.

We may also add a word as to the importance of seeing that the light in any room is as evenly distributed as possible, so that sufficient light is given to the students of weakest sight and to the students placed in the farthest corners without giving excessive light to any student.

We may be forgiven for any appearance of over-emphasis as to the importance of the illumination of our schools being both adequate and scientific. When one bears in mind the large proportion of pupils in our schools who have defective vision, Dr. James Kerr, Medical Officer to the London County Council Education Department, at the International Congress on School Hygiene, held at Buffalo, New York, in August last, stated that the vision of 20 per cent. of the pupils examined by him was below normal, whilst 10 per cent. possessed only one-third of normal visual power.

Much importance is attached by some people to the method of lighting known as "indirect," whereby the source of light is entirely obscured from vision, and the illumination of the room is obtained solely by reflection from wall and ceilings. This is an expensive method of artificial illumination, the necessity for which has not, in our opinion, been adequately established. Semi-indirect methods of lighting, such as can be seen in some of the corridors of the model rooms in this Exhibition, are, in our opinion, equally, if not more satisfactory from the point of view of illumination, whilst less expensive and also more constantly efficient because less dependent upon the cleanliness of walls and ceilings. There is one point that needs to have attention drawn very emphatically to it, and that is that whatever the system of lighting that is adopted, and whatever the illuminant employed, "maintenance" of the lighting in a state of efficiency is most essential.

It is no use installing efficient gas-burners if they are not kept periodically clean and if the mantles are not renewed until someone complains that the light is bad. It is no use installing the most up-to-date electric filament lamps if those lamps are allowed to remain in use after their efficiency has become impaired. It is, in short, very false economy to cut down the expense of maintenance below the cost of effective upkeep, as you are then paying for gas or current, as the case may be, from which you are obtaining no light. It is in the end far better economy to employ experts to give this matter periodical attention than to allow it to be within the province of the casual caretaker or the handyman, the one of whom perhaps takes care most particularly not to do more work than he or she is compelled to do, while the other is more particularly "handy" upon any job than the one specially to be done.

We now want to point out the close relationship that can exist between the lighting and ventilation when the gas is employed. At one time it was common to find in every public hall gas "sun" burners in the roof, but upon the introduction of the more economical incandescent gas-burner and the adoption in many cases of electricity as an illuminant this method of combining lighting with ventilation temporarily fell into disuse, to the great disadvantage of the users of many of the buildings in which they were formerly employed, as such burners constituted a powerful engine of useful ventilation. . . .

Smaller incandescent ventilating lamps have taken the place of the old luminous flame regenerative lamps which were very popular some years ago, and they can be strongly recommended for the lighting of classroom and similar apartments. The products of combustion pass from the ceiling into a flue which is carried either into the chimney of the room or into the open air, with proper arrangements for preventing "back draughts." If

reasonable provision is made for the intake of fresh air into a room the use of these lamps solves the problem of ventilation very satisfactorily in dark and cold weather, and all the ingenuity of man has not yet devised any much more satisfactory system of ventilation in hot weather than an open window.

Even, however, if no special type of ventilating gas lamp is used it may be said that there is something radically wrong with the construction of a room of normal dimensions if the use of sufficient gas by modern burners to light the room adequately materially increases the temperature in that room, or causes any noticeable rise in the CO_2 contents of the atmosphere.

This, which is the experience of many users of gas lighting in rooms which have normal means of ventilation, has also been established by the independent test of such men as Dr. Rideal, the eminent research chemist, and Dr. Toogood, the Medical Superintendent of Lewisham Infirmary. The latter authority, in an interesting report upon the subject, states that his experiments proved conclusively that in both large and small apartments which have normal means of ventilation gas consumed in modern incandescent burners can be used for lighting without any detriment to health, being found in fact to assist ventilation by the increased circulation of the air.

In the course of his report he pointed out that it is of importance to all of us who are concerned with tests for atmospheric purity and questions of lighting and ventilation to remember that figures giving the parts of CO_2 per 10,000 present in the air of rooms are not conclusive evidence as to the degree of vitiation of that air, unless it is known whether the excess of CO_2 over the normal is due to the combustion of purified coal-gas or to the exhalation of CO_2 from human lungs. Carbon dioxide, of itself, is a chemically harmless, inactive gas, the presence of which to the extent of ten times the normal would have no physiological effect on the inhabitants of a room; and it should be only regarded as an easily measured index of the existence of harmful organic compounds expired with it from human lungs. But, as we have said, there is no reason why, if gas lighting is intelligently employed in rooms intelligently constructed, there should be any increase in CO_2 arising from its use; whilst the slight increase in temperature produced by the use of gas for lighting is almost invariably an advantage, as darkness and cold very generally go hand in hand in this country. It is to be hoped that architects and school managers will, when employing gas for lighting, bear in mind the modern improvements in gas-burners and lamps which enable it to be utilised as an active instrument of ventilation, not merely removing its own products of combustion, but helping materially to remove the products of respiration of the occupants of the room, and so maintaining the vitality of those occupants at a higher level than would be maintained in an ill-ventilated building.

Passing now to the consideration of the way in which gas can be put to the service of the educationist for heating purposes, one would first of all like to emphasise what has already been pointed out elsewhere by competent authorities (notably by Professor Leonard Hill) that, for the purpose of securing the best hygienic conditions in any room, radiant heat is of far greater value than convected heat, the difference between the two being that radiant heat—say, that from the sun or from a glowing body such as a coal fire or gas fire—warms the objects upon which those rays fall, but does not heat the air through which they pass; whereas convected heat, such as that from hot-water pipes, radiators, etc., raises the temperature of the air, and so increases its capacity for absorbing moisture from the human body. This is what produces that feeling of stuffiness and headache from which we have all suffered in rooms heated by such methods, especially if the heating has been in any way overdone, as so often happens where central heating is employed.

Now, for large schoolrooms and suchlike buildings a system of open fires as the sole means of heating would be a costly matter owing to the labour entailed in the use of coal on the one hand or the cost of the gas for constant heating on the other. But here, as in many things British, we are able to arrive at a reasonable compromise for the heating of large rooms in very cold weather.

A central boiler, heating radiators to a moderate temperature throughout the building, will warm the air of the rooms without heating them to an uncomfortable degree, provided that the area of radiation allowed is not excessive and the radiators are not permitted to become overheated. To enable such an installation to keep a building comfortable during the most severe weather, and to take the place of such an installation during those periods of the year when warmth is only wanted spasmodically, perhaps in the early morning or late afternoon, the installation of gas fires in every room is suggested as a satisfactory complement. Those fires can be lighted at a moment's notice and put out with equal expedition, so that the consumption of fuel is confined precisely to the period during which heat is required, whilst their effect in assisting the ventilation of a room and in providing radiant heat will make for the comfort of the inmates.

For use in the living-rooms of teachers and students in colleges and universities gas fires present obvious advantages, as they entail no labour, make no dirt, and are available for use just as and when wanted. The advantage of a boiling burner attached to the fire also makes it possible for a teacher or a student to make hot food or drink at any hour of the day or night, when it might be very inconvenient or even impossible to obtain it in any other way. It is hardly necessary to point out that one of the great advantages of gas heating over other methods in such quarters in this British climate of ours (which a schoolboy once defined as "not being a climate at all, only weather," and which an American designated as being "only a collection of samples") is that it can be called into service at a moment's notice; so that if a student be working late and the night suddenly turns cold he or she can go on working in comfort through having a fire at command, instead of shivering in discomfort and even danger through having let a coal fire out earlier in the day because the weather had been muggy. Architects, in the planning of college quarters, must in future make provision for the laying on of a gas supply to every room, so that this cleanly method of heating can be installed at any time that the college authorities may desire it, without the disturbance to the building that is sometimes entailed in the installation of modern methods of heating in old buildings.

Cooking.

We must now briefly refer to the necessity for the installation of efficient gas cooking appliances in those schools where cookery is taught, as gas, thanks to the penny-in-the-slot meter, is now becoming the almost universal fuel. Reference must also be made to the advantage of gas appliances for the equipment of catering kitchens in those establishments where meals have to be provided for a large staff and body of students. This is a matter to which the architect should give careful consideration when planning either cookery centres or kitchen quarters for schools and colleges.

Laundry Work.

Similarly, gas is a valuable servant in laundry centres and college or institution laundries, and attention may be called to the value of using gas under pressure for the purposes of big laundry work.

Laboratory Equipment.

The value of gas as a clean and easily manipulated fuel in the laboratory scarcely needs mentioning. The steady increase in the use of gas for all classes of furnace work has been a notable feature both in the experimental laboratory and the practical workshop and factory for some years past. . . ."

SCIENTIFIC LIGHTING.

LORD RAYLEIGH presided at a conference held on Friday last week at the National Gas Exhibition, Shepherd's Bush, on "Some Aspects of Scientific Illumination." He said that they were all agreed that it was necessary to have a sufficient supply of illumination, and they had to see that it was properly distributed. Every effort should be made towards preventing anything in the nature of a glare.

In a paper on "The Aims and Objects of the Illuminating Engineering Societies" Mr. Leon Gaster said they were well on the way towards making the measurement of illumination as natural a process as the measurement of temperature, moisture, or the percentage of carbon dioxide in the air.

Sir John Cockburn remarked that light was one of the greatest stimulants to the body and mind, and the ideal light was that which gave sufficient illumination without the source from which it came being seen.

The Chairman referred to the fact that the electric light industry and the gas industry were not antagonistic. Electricity was particularly easy to measure, but the difficulties would have been greater if the way had not been prepared by scientific men before the industry had grown. They all desired that illumination should be measured in a practical manner.

Dr. Meredith Young, lecturer on School Hygiene, University of Manchester, read a paper on "Light and Sight," in which he discussed the question of "glare," and said that it was a scandal that so many of our workers should be compelled to earn their living, day in and day out, in badly-lighted factories, workshops, kitchens, sculleries, basement offices, and the like. Before legislation was introduced, one was told that the people must be educated up to the necessity for it; if that were so, they should lose no further time in starting the campaign. If he were asked which was the greater detriment to eyesight, working with insufficient light or working in too brilliant light, he should have no hesitation about his answer—insufficient light was the greater danger. He wondered there had not been—he would not call it a strike, because strikes were beginning to stink in our nostrils—but concerted action, particularly on the part of clerks and domestic servants, for the provision of a sufficient and satisfactory light for the work they had to do. It was a pity that some information was not available as to the amount of defective vision among that large section of the business population represented by clerks. Dr. Young criticised the methods commonly employed in lighting hospitals, and also described the prevalent inadequate lighting of kitchens, sculleries, and butlers' and housemaids' pantries as a very real hygienic danger. From the disease prevention point of view, he said, these should undoubtedly be the best lighted parts of any house.

In a paper on "The Economy of Efficient Lighting" Mr. Franklin Thorp said many cases were known of weavers in Lancashire leaving one firm to go to another purely on account of the better illumination, and in one or two cases they had only averted a strike by hurrying on the better lighting of a shed.

AIR-GAS:

"NATIONAL" PATENTED PRODUCER PLANTS.

THE plant made by the International Air-Gas Corporation, Ltd., of 26, Victoria-street, S.W., for the generation of gas from petrol or any suitable hydrocarbon is supplied in three forms:—

(*a*) A weight-driven producer for installations of moderate size, such as those required for the supply of private houses.

(*b*) A producer plant comprising a hot-air engine to furnish the power for driving the apparatus.

(*c*) Producer plant arranged for operation by any available internal-combustion engine or other prime mover, or for being driven by water power.

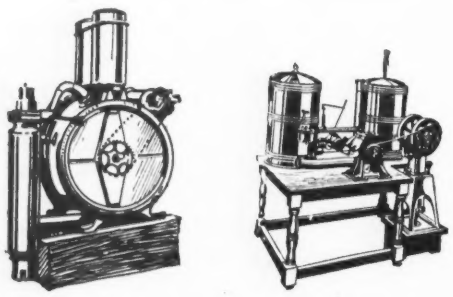
Although the newest machine of the kind on the market, the weight-driven producer is actually the product of some seven years of research, and in it is embodied the experience gained in the manufacture of the National engine-driven plant. The makers claim that this is the only weight-driven producer capable of carburetting spirit costing less than 1s. per gallon, and that it is the only machine of the kind providing a proper pressure and temperature regulation. It is stated that there is no need for constantly draining the carburettor by hand, as this appliance uses up all the petrol. It has no valves, meters, buckets, or glands, all the working parts are in sight, and every part is made of copper, brass, gun-metal, or cast-iron. The weights can be wound up at any time without interfering with the operation of the plant, the action of which is absolutely automatic, no hand regulation being required for either temperature or load. The machine is guaranteed to be capable of generating air-gas from cheap, heavy petrol of from

0·725 to 0·760 specific gravity, and of supplying a proper quantity of gas of correctly-proportioned mixture to the full number of 50-100-candle-power burners specified for the various sizes in which the machine is supplied. The smallest size is suitable for installations up to ten lights, and the largest size for the supply of sixty lights of the candle-power mentioned.

The engine-driven National plant has been familiar to the public for several years past as a most efficient and satisfactory type of motor petrol air-gas apparatus. It is capable of using the cheapest and heaviest grades of spirit, and is made in all sizes up to 1,000 lights. The patent valve and thermostatic control gear ensure a constant mixture of spirit vapour and air on all loads and at all temperatures, and the apparatus requires a minimum amount of attention. The same features characterise the machines arranged for operation by independent engines or sources of power.

The International Air-Gas Corporation supply burners of various patterns, enclosed lamps, mantles, globes, switches, wall plugs, and all requisites for the complete installation of lighting systems. After experimenting for twelve months they announce that they have succeeded in perfecting an absolutely noiseless air-gas burner which has a remarkably low gas consumption. By the use of enclosed lamps the National light can be fixed in places where the ordinary gas light would be dangerous; the employment of switches for turning lights on and off is another convenience, and the automatic wall plugs of the Corporation should be greatly appreciated by those who wish to connect up a table or standard lamp independently of the lights provided as fixtures.

The Corporation are sole British concessionaires for the Bonecourt system of radiant heating as applied to petrol gas, by which it is claimed that a saving of 25 per cent. can be made on



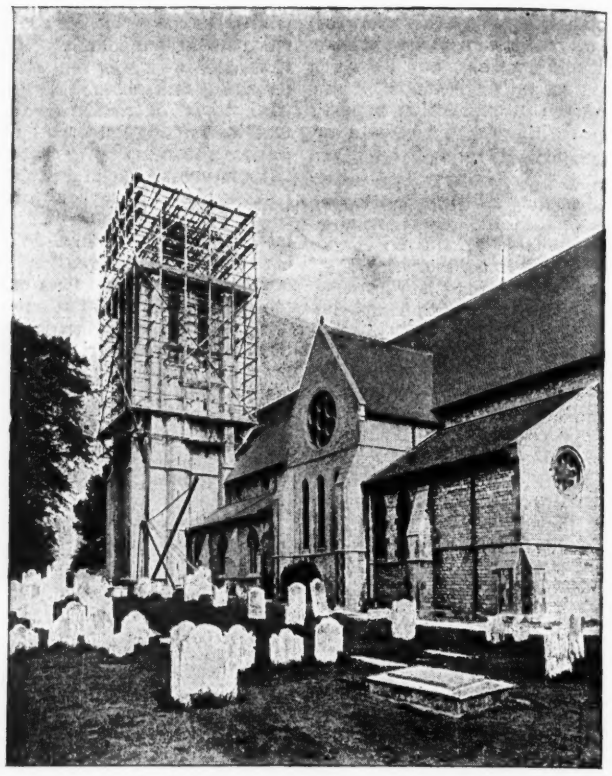
Weight and Engine-driven Plant.

the cost of the older form of gas heating, and without causing any exhaustion or vitiation of the atmosphere. Those of our readers who are interested in the application of air-gas to lighting, heating, cooking, and similar purposes can inspect gas-producing plant and auxiliaries of every kind at the show-rooms of the International Air-Gas Corporation, or may obtain every information at the National Bungalow, No. 81, in the Ideal Home Exhibition.

NOTES.

High-Pressure Gas in Edinburgh.

AN installation of high-pressure gas lighting in Edinburgh includes sixteen lamps of from 1,000 to 3,000 candle-power, replacing thirty-six ordinary low-pressure lamps, and providing illumination equal to 25,500-candle-power. The gas is supplied through compressors at a central station on Calton Hill, where distance control apparatus has been installed for lighting and extinguishing all public lamps on the system. Several of the lamps have been fitted with two burners, arranged so that one of these can be extinguished at midnight from the central station. As the high-pressure mains are laid along Leith-street it is intended to supply the occupiers of business premises along that thoroughfare, and to extend the system as may be justified by applications from intending consumers. Supplies for industrial purposes are also contemplated. A recent demonstration of the installation, given to the Gas Commissioners of Edinburgh and Leith and to others interested, illustrated the manifest advantages of modern high-pressure gas lighting.



Erection of Tower and Spire to a height of 182 ft. on a Church in the South of England.

A 15-h.p. B.T.H. motor was used to raise everything for the building operations. The average load was 15 cwt. at 130 ft. per minute.

Electric Driving for Building Purposes.

THERE is no problem of more vital importance to the factory, mill, or workshop owner than the question of the most suitable power to drive his machinery, which may frequently make the difference between profit and loss. There are three methods of driving machinery—namely, the electric motor, the steam-engine, and the internal combustion engine. Of these the former is the most efficient, safest, cleanest, most noiseless and flexible. Although in some districts the cost of electric energy may be higher than its equivalents in steam, gas, or oil, the economy of operation is such that a good result can almost invariably be obtained for less expenditure with an electric motor than by any other means. Electric motors are easily and quickly installed, and require no special foundation or alteration to existing arrangements, and they can, if necessary, be fixed in an out-of-the-way place on a wall or ceiling, thus saving space, and they do not require skilled labour. Provided the motor is well designed and constructed it can be relied upon to do its work without fear of breakdown, and also to stand considerable overload for short periods. There is a further great advantage of electric driving—the necessity for overhead belts and shafting is obviated. The electric drive is a clean drive, as the electric motors do not consume oxygen, or create fumes, or make any sort of dirt whatever. From the manufacturer's point of view the main advantage of the electric motor lies in the fact that the cost for power is always proportional to the actual work done. A single machine can be used at any time without running the whole power plant.

A large amount of scientific research and practical experience has gone to the development of the best type of electric motor. At the works of the British Thomson-Houston Company, Ltd., of Rugby, where upwards of 4,000 operatives are employed, every motor that is manufactured undergoes a searching test, approximating as nearly as possible to actual working conditions. It is only when these tests are satisfactorily passed that the motor is put on the market. The British Thomson-Houston Company have installed electrical equipment into practically every class of trade. The company will advise on the class of motor suitable in each case. A copy of a booklet on the subject of "Electric Power for Industrial Purposes" can be obtained on application for Booklet No. 103 to the company's office at Rugby.

Practical Cement Testing for Reinforced Concrete.

ALTHOUGH the best English Portland cement is unrivalled, ability to promptly detect unsound cement is essential on the part of all those who undertake the supervision of reinforced concrete. In the course of a series of lectures at the Westminster Technical Institute an exhaustive demonstration of modern methods of testing was given by Mr. Cox and members of the chemical and testing staff of the Associated Portland Cement Manufacturers, Ltd., to a large audience of engineers and architects. The facilities afforded by the directors of the company for the practical study of the subject were admirable, and included the exhibition of a very large number of specimens of suitable and unsuitable aggregates and tested specimens of good and bad cements and mortars. There can be little doubt that if the comparatively simple tests described by Mr. Cox, together with the precautions to be adopted in applying more elaborate tests required by the British Standard specification were more widely known, the detection of "natural" and unsound cements would be greatly facilitated. Notwithstanding the many excellent text-books on cement testing, a small illustrated book on the lines of Mr. Cox's lecture would be of no small value to cement users.

OFFICES, KINGSWAY.

Windsor House, with a frontage of 94 ft. in Kingsway, and Regent House, with frontages of 64 ft. in Kingsway and 65 ft. in Great Queen-street, are in course of erection from the designs of Messrs. Trehearne & Norman, Sardinia House, Lincoln's Inn-fields, W.C. Messrs. William Taylor & Co., Lower Mall, Hammersmith, are the general contractors, and the steelwork is by Messrs. Powers & Deane, Ransomes, Ltd., Cubitt Town. Messrs. Smith, Major, & Stevens, Ltd., London and Northampton, are installing the lifts, and the electric light installation is by Messrs. Locke & Soares, New Cavendish-street, W. The Bath and Portland Stone Firms, Ltd., are supplying the stone, the marble-work is by Messrs. Fenning & Co., Hammersmith, and the tiling by Messrs. Carter & Co. The woodwork is from Messrs. Elliott's Joinery Works, Newbury, and the plumbing, etc., by Mr. W. G. Carter, Willesden.

THE BUILDING TRADE.

BUILDERS' SOCIETIES:

THEIR AIMS, OBJECTS, AND POLICY.

BUILDERS' societies hitherto have been of three kinds, viz. :—Trade societies, professional societies, and benevolent societies. It is proposed to give a short account of each type, with some indications of their aims, objects, and policy.

The trade society represents the oldest kind of builders' society. It is formed to resist pressure from operative trade unions, and in the past was so loosely organised and so little animated by any other motive than resistance to the demands of workmen that it readily fell asunder again when the pressure ceased.

The unifying policy of the trade unions, which led, years ago, to the formation of national and amalgamated unions, caused employers to recognise that some more stable and widespread organisation had become necessary in their case as well, and out of that recognition sprang a national association of Master Builders, founded in 1878, which, by a natural evolution, became transformed into the National Federation of Building Trades Employers.

The federal form of organisation was adopted in order to give scope to that desire for local autonomy, which is one of our national characteristics; it also made possible an extension of the builders' societies so as to bring into the federation scheme all classes of employers engaged in the building trade. An effect of the change was to render unnecessary some separate sub-trade associations and to make both general contractors and sub-traders realise that they had common interests which could be served by a federal organisation.

The organisation consists, therefore, at present of some 140 local associations, grouped into a number of regional federations, which are grouped again into the four centres which form the National Federation.

There is a sister federation for Scotland which has hitherto enjoyed honorary membership with the National Federation, which, in the near future, might well be changed into complete membership to the substantial advantage of both, especially in representing the interests of the building trade when legislation affecting it is toward. There are also an uncertain number of local builders' societies which remain isolated from the main body, and confine their activities to local affairs until some unusual pressure causes them to recognise, as their fellows in other places have long recognised, the advantage of uniting for mutual support.

Several of the sub-trades, like painters, plasterers, slaters, and plumbers, have deemed it advisable to maintain separate national organisations in addition to their individual membership with the local building trade associations affiliated to the National Federation.

The primary aim or ideal of the various kinds of local society was to defend by joint action the liberty of employers to carry on their businesses as they thought proper, subject only to such conditions as had been agreed between employers and employed.

It was soon found, however, that, as an aim, that was too narrow, that the liberty of an employer to carry on his business in his own way was curtailed in various other directions by conditions of tendering and of contract and by legislative enactments imposed upon him, so the general aim of these trade societies was expanded until it now may be said to cover the defence of building trade employers against any and everything, which, if not checked, would hinder them from exercising their profession with the utmost freedom consistent with due regard for the rights of others. As the ideals of the members of these societies have grown so the range of objects sought to be realised has been extended.

The list at the head of the rules of the National Federation, for instance, now comprises items covering relations with workpeople or their combinations, and to demands made or action taken by them; the federalisation of unorganised districts; pecuniary and legal assistance to members; co-operation with kindred organisations for common objects; the promotion of conciliation boards; the scrutiny, criticism, and, if need be, opposition of legislative enactments affecting the trade; the obtaining of fair and equitable treatment from architects and others; the promotion of further local organisations and the provision of funds for the work.

A similar expansion of the objects of local association activity has taken place, and there is being built up gradually a code of trade ethics which tries to soften the asperities engendered by the competitive conditions under which the building trade is carried on. The policy of a federation and of the various societies comprising it, while mainly directed to similar objects, is manifested differently, according to whether it finds expression through local associations or through federal groups.

The policy of the larger bodies looks more to general issues and tends to overlook purely local ones, but in the localities the tendency is for the local policy to assume an importance which tends to eclipse the more general policy of the federated bodies, and occasionally the two clash a little. Among the workmen this kind of conflict between local and federal policies is rather acute just now, and accounts for what the newspapers call the revolt of trade unions against their own executives.

Where a local question touches the members' pockets as severely as does the enhanced cost of living they become too impatient to await the slower processes of diplomacy as practised between federal groups, and there ensues a revolt of the local rank and file which destroys confidence in agreements for the settlement of disputes by conciliation or arbitration.

This might be prevented if the federations on both sides could act with greater prescience and forestall the trouble by suitable wages adjustments.

The world-wide movement for improved conditions which is so much in evidence among the workmen is making itself felt, too, among employers in the building trades.

For years these have had a hard fight to hold their own; competition has been severe, and many have gone under in the struggle. Employers are asking one another why not better conditions in the building trade for us as well as for the workpeople? Why should we be set to fight one another in cut-throat competition for the benefit of building owners? It is not as though the winning competitor got the prize; he only gets a hard contract for which he assumes all risks, and out of which he is lucky to wring a profit. The prize goes to the promoter of the sport in the shape of the profit which the competitors in their struggle have dropped. Sports competitions on such lines would be laughed at, but tendering competitions are organised for the express purpose of restricting builders to the lowest price which their necessities or their ignorance can induce them to accept in order that the building owner may get a cheap building. The result is seen in the many failures which occur in the building trade, and which need not happen if the trade was conducted so as to yield a reasonable return to those who engage in it.

The policy of these trade societies, therefore, is now undergoing revision, and is being directed rather towards obtaining better conditions of competition and a better assurance of a fair return on the work contracted for than to trying to hold back the demands of the workmen for better wages.

It is too soon to forecast the outcome of this movement, but there is an earnestness about the demeanour of employers on this question that shows they mean business.

The general policy of the Federated Builders' Societies may be shortly summed up as:—

Regulation of relations with the operatives by methods of conciliation where practicable; regulation of relations with architects and others by suitable conditions of tendering, contract, sub-contract, etc.; regulation of relations with sellers of materials to secure a legitimate preference to the builder as a wholesale buyer; regulation of relations with one another to put a stop to undercutting in competition.

It seems likely that to these will be added—the regulation of the training and education of those who come into the trade, so that, for a builder, fellowship of a professional institution for builders may become as desirable an acquisition as fellowship with any of the architectural or engineering institutions is for those who aspire to enter the constructional professions.

As regards professional societies, the position is very different. There is only one for the building trade, viz., the Institute of Builders, which had its beginnings in a society formed in London in 1834, called the Builders' Society, for the purpose of promoting friendly intercourse the interchange of useful information, and increased uniformity and respectability in the conduct of business.

The Institute, on becoming incorporated, took over the Builders' Society and largely extended its objects, while in the main its aims seem to have remained the same.

Among the more important of its objects are mentioned: To protect the interests of persons engaged in the building trade; to give facilities to the Legislature and other public bodies for conferring with and ascertaining the views of persons engaged in the building trade as regards matters affecting it; the same with the Royal Institute of British Architects and other similar bodies; to originate and promote improvements in the law or in its administration; to petition Parliament; to improve and elevate the technical and general knowledge of persons engaged in the trade; to provide for lectures and the holding of classes, and the award of certificates and distinctions to that end, and to institute and establish scholarships; to promote excellence in the construction of buildings, and just and honourable practice in the conduct of business, and to suppress malpractice; to afford its members the usual privileges, advantages, and conveniences of a club, and not to impose on its members any regulation which would make the Institute a trade union.

Its membership, for the purposes of registration, was declared not to exceed 250, and has been mainly drawn from the London district, although members are admitted from the provinces as well, but, unlike the R.I.B.A., it has no provincial branches.

Its sphere of influence has, in consequence, been more restricted than seems desirable in an institution of its importance, and it would add immensely to its usefulness to the trade, if, like the corresponding institution in Germany, it had branches in every important locality, working side by side with the trade associations of the Federation.

Nevertheless, the Institute has an honourable record of good work accomplished in the carrying out of its objects, especially in regard to its support of technical education in London and in the negotiation of the agreed form of contract with the R.I.B.A.; it is engaged now on negotiations with that body for a form of sub-contract for use where specialists are employed, which may prove not less useful and is really wanted, also for a much-needed standard specification for timber.

The University of Sheffield is establishing courses of instruction for aspirants to the building trade, and desires the co-operation of the National Federation of Building Trade Employers; it would doubtless welcome that of the Institute, especially if the latter could be made more representative of the whole trade.

The time seems to be opportune for such a development, and doubtless other Universities would follow the lead of Sheffield if the Institute could voice the need of the trade for better facilities for the acquirement of such technical and general knowledge as would fit young men for responsible positions in it.

The Builders' Benevolent Institution of London, founded in 1847 for granting temporary relief and pensions to necessitous masters who have been engaged in the building trade and its branches, and to their widows, is the only institution of the third type.

The number of pensioners on the funds in 1912 was fifty-three, and during its existence it has succoured about 400 persons of either sex.

It has an income of some £2,500 a year, and the maximum pension in the case of a man is £42, and in the case of a woman £30 per annum. The pensioners must have been established

in business within the 10-mile radius of Charing Cross.

It is evident from the foregoing facts that the Benevolent Institution does a good deal of useful work. It has had to rely for its funds mainly upon the generosity of Londoners and of the Institute of Builders, as it is hardly known in the provinces, which is a pity, since there are doubtless many deserving cases there; and perhaps if the Institute of Builders were developed on the lines suggested above its provincial branches might awake an interest in the Benevolent Institution, which would lead also to an extension of its sphere of usefulness, provided the scope of its constitution was extended to the provinces.

SOME REFLECTIONS ON TWO BLUE BOOKS.

At first sight the Report of the Board of Trade (Department of Labour Statistics) and the annual Report of the Local Government Board, 1912-13, would seem to be unpromising material out of which to point a moral and adorn a tale, but there is much that is useful and suggestive even in these colossal monuments of statistics.

Turning first to the Board of Trade Report, which is the twentieth of those which have been issued, we find a great deal of interesting matter connected with the building trade in this country. The three sources of information which are relied on by the Department are, first, statements in the monthly returns from employers' associations and trade unions; second, notifications received from the local correspondents of the Board; and, third, reports in the Press, which are always carefully noted and are of great value.

Compared with other trades, the building trade has been comparatively little affected by single changes, the greatest number so affected being in the building trades 20,000, as against 42,000 in the engineering and shipbuilding industry, 243,000 in the textile trades, and 390,000 in quarrying and mining. It is noted that, while some employers stand outside the employers' associations which are parties to collective agreements, there is a strong tendency among such employers to pay men in accordance with such agreements, so that the collective changes actually extend their influence beyond their immediate sphere, wide as the latter is.

The changes in the hours of labour in all trades combined which took effect in 1912 affected 105,317 workpeople, of whom 104,304 had their hours reduced and 1,013 increased, all the changes effecting a reduction of 210,556 hours per week.

From 1893-1912, ten years, were years of declining trade and ten of improving trade, marked by increasing wages. From 1893-5 trade declined, followed by an advance between 1896-1900, and a subsequent decline in the next five years, 1901-5. A short advance of two years, 1906-7, was followed by a decline of two years, 1908-9, while 1910-12 have been years of improving employment and increased wages, the net weekly advance over the whole period of fat and lean years being an increased weekly wage-bill of £467,173, so that the net amount of the upward wage movement in the last twenty years has been an advance of half a million a week spread over all trades except agricultural labourers, seamen, and railway servants.

The results in the building trade alone in the period under review affects 36,558 men, who have had their wages increased by £57,882 a week.

The most marked increase was shown in the year 1912, when, of the total number employed in the building trade, 10·6 per cent. received an advance, as against changes varying from 0·3 to 5·0 in the previous period under review, the percentage of trade union carpenters and plumbers unemployed in 1912 being the lowest on record since 1902.

The principal increases during the year affected 1,350 painters at Newcastle, Sunderland, and other North-East Coast towns; 2,111 bricklayers, masons, carpenters and joiners, slaters, plasterers, and labourers at Hull; 1,000 carpenters and joiners at Leeds; 5,850 bricklayers, carpenters and joiners, plumbers, and woodcutting machinists in Manchester and district; 5,930 bricklayers, slaters, painters, labourers, etc., at Birmingham; 2,855 bricklayers, masons, carpenters and joiners, plumbers, plasterers, painters, labourers, etc., at Bristol; 1,323 bricklayers, carpenters and joiners, plumbers, plasterers and labourers at Coventry; 1,048 bricklayers, masons, carpenters, plumbers, plasterers, painters, and labourers at Northampton; 3,500 masons and 20,000 carpenters and joiners in London; 2,700 bricklayers, masons, carpenters and joiners, plumbers, plasterers, painters, and labourers at Cardiff; 1,490 bricklayers, masons, carpenters and joiners, plasterers, and labourers at Newport, Monmouthshire; 1,140 masons, carpenters and joiners, and slaters at Aberdeen; 1,040 bricklayers, masons, joiners, slaters and painters at Dundee; 3,225 masons, carpenters and joiners, and painters at Edinburgh and Leith; and 6,490 joiners, slaters, plumbers, and painters in Glasgow and district, all of whom received an increase of ½d. per hour. In addition, 1,100 carpenters and joiners in Sunderland and district, 1,000 labourers at Bradford and Shipley, and 1,600 labourers at Dublin received ¼d. per hour; 2,000 painters at Liverpool received ¾d. per hour, and labourers numbering 2,000 at Liverpool and 2,500 in Manchester and district had their wages increased in both cases to 6d. or 6½d. per hour.

The extent to which each of the occupations included in this group was affected is shown in the following table:—

Occupations.	Net Increases.	
	Work-people Affected.	Total Weekly Am'nt.
	No.	£
Bricklayers	6,597	375
Masons	6,708	592
Carpenters and Joiners	43,321	3,649
Slaters	999	97
Plumbers	4,692	449
Plasterers	2,185	215
Painters and Decorators	14,609	1,448
Labourers	15,643	1,450
Others	899	85
TOTAL	95,653	8,360

Changes in Hours of Labour.

In 1912 47,288 workpeople in the building trades had their hours changed, as compared with 6,150 in 1911 and 12,918 in 1910. Of these, 46,403 had reductions amounting to 37,890 hours per week and 885 had their hours increased by 384 per week. The net result of all the changes was thus a reduction of 37,506 hours per week, as compared with one of 3,658 in 1911 and 4,209 in 1910.

These statistics are satisfactory reading for those interested in the building trades, and it is to be hoped that the upward tendency will continue under the influence of expanding trade, and that the workers' organisations will hesitate before indulging in the periodical strikes which do so much to dislocate and bring to a standstill the material prosperity of all classes. The workers should recognise that the first result of a strike is to bring immediate hardships on themselves, while, unless their action is based on a sound foundation of reason, it must inevitably react against their own interests. A small advance also may be dearly bought if it is preceded by a long spell of unemployment, while it is not likely to prove permanent if unwillingly conceded by employers' associations which do not see their way to make work remunerative under the changed conditions.

The Report of the Local Government Board deals with the administration of the Poor Law, the Unemployed Workmen's Act, and the Old-Age Pensions Act, and so we may expect to find corresponding fluctuations intimately connected with the wages movements in the Board of Trade returns. On January 1, 1913, we find that the rate of pauperism to population was 21·7 per 1,000—a rate lower than that of any previous year. The mean number of paupers relieved during the year, between July 1 to January 1, was 783,913, or 21·5 per 1,000 of the population. The unfortunate disputes in the coal trade have made the year an unusually difficult one for many Boards of Guardians. The number of paupers relieved between April and July, when these disputes were in progress, exceeded those in the corresponding periods of previous years by from 13,704 to 28,630—another proof of the immediate evil arising out of strikes.

Pauperism in London stands at 29·3 per 1,000, as against 21·7 in England and Wales generally, but the excess occurs entirely in the class of indoor paupers, the excess of this class in London being nearly three times what it is in the country as a whole. An important factor in this question is, however, the great development of Poor Law infirmaries and other specialised institutions in London. Out of 33,717 paupers under medical treatment in separate Poor Law institutions throughout the country 13,727, or nearly 41 per cent., were relieved in London.

We learn from the Report that the average cost per head of the indoor pauper who is relieved in Poor Law institutions in London is £38 4s., compared with £28 5s. outside London, the difference being occasioned by the large expenditure on infirmaries and other special buildings in London, the average cost per head of paupers relieved at non-Poor Law institutions varies between £22 5s. for London and £21 6s. outside London.

It is interesting to note that in the twenty years between 1891 and 1911 the movement of population from inside London to the outer ring of districts has resulted in the population comprised in the Unions of Westminster, Strand, St. George's (Hanover-square), Holborn, the City of London, and Southwark being decreased by 100,000, and this movement of population has resulted in the central institutions having more accommodation than they can fill, while there is a want of accommodation in the outer ring due to the increased pressure of population there. In order to meet this difficulty without resort to the expensive expedient of building, an endeavour has been made to arrange for the admission of specified classes from the whole of London to institutions where there is room. By a recent order also Westminster, Strand, and St. George's Unions have been merged into the new City of Westminster Union, and application for other amalgamations are now under the consideration of the Board.

The Reports of the various inspectors also make reference to the question of provision for the feeble-minded, which is one of the questions which the Board is attempting to solve.

A section of the Report gives a list of the year's expenditure for the erection and enlargement of workhouses, and we think it may interest those connected with the building trades to know that the amount expended on new Poor Law buildings and purchases of land and like matters amounted to the sum of £96,000 in round figures.

It may be seen from the above how great the problem and immense the expenditure on buildings is in connection with the administration of the Poor Law; it is a typical case of the importance of the functions which have to be performed by the State for the common weal, and shows how necessary it is that the best system shall be arrived at in a matter so vitally affecting national interests.

THE LONDON MASTER BUILDERS' ASSOCIATION.

THE ordinary meeting of the Council was held on the 16th inst. at Koh-i-noor House, Kingsway, W.C., the President, Mr. Walter Lawrence, jun., being in the chair.

The Reports of the Committees and proceedings of the Conciliation Boards were received and adopted.

Several new members were duly elected and applications for membership received.

Correspondence relating to trade matters, etc., was considered and instructions given.

Since the last meeting of the Council a Working Rule Agreement has been made with the United Builders' Labourers' Union.

WAGES IN THE BUILDING TRADE.

BARROW-IN-FURNESS.—The builders' labourers have given notice for an increase in wages of 1d. per hour (6½d. to 7½d.).

DERBY.—An advance of ½d. per hour (9d. to 9½d.) will be paid to the masons on and after November 3.

HALIFAX.—The employers have received notice from the labourers for an increase in pages of ½d. per hour (6½d. to 7d.).

HUDDERSFIELD.—The plasterers have made application for an advance in wages of ½d. per hour (9d. to 9½d.).

LIVERPOOL.—Advances of ½d. per hour will be paid to the masons, bricklayers, and carpenters as from November 1. On and after that date the rate for these trades will be 11d. per hour. The french polishers in this district have been locked out for the past ten weeks, but a settlement is expected shortly.

RATES OF WAGES IN THE BUILDING TRADE.

THE following are the present rates of wages in the Building Trade in the principal towns of England and Wales. It must be understood that, while every endeavour is made to ensure accuracy, we cannot be responsible for errors that *may* occur:—

—	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Masons' Labourers.	Bricklayers' Labourers.	Plasterers' Labourers.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Newcastle	10	10	10	10	9½	10	9	6¾	6¾	6¾
Sunderland	9½	10	9½	9½	9½	9	9	6½	6½	6½
Darlington	9	9½	9	9½	9½	8½	7½	6½	6½	6½
Stockton-on-Tees	9	10	9½	10	9½	9	8½	7	7	7½
Bradford	9½	9½	9	9	9½	9	8½	7	7	7
Halifax	9	9	8½	8½	8½	8½	8¼	6½	6½	6½
Hull	9½	9½	9½	9½	9½	9½	8½	7	7	7
Leeds	10	10	9½	9½	9	9½	8	7	7	7
Sheffield	10	9½	9½	9½	9½	9½	8	6½	6¼	6½
York	9	9½	8¾	9½	9½	8½	7½	6½	6½	6½
London	11½	11	11½	11½	—	11½	9	7½	7½	7½
Brighton	8–9	8	8	—	—	—	—	—	—	—
Portsmouth	9	9	9	9	—	8	7½	6½	6½	6½
Southampton	8½	9½	9	8	—	9	8	6½	6½	6½
Maidstone	9	9	9	—	—	9	7½	5½	5½	5½
Bristol	9½	9½	9½	9½	—	9½	9	6½	6½	6½
Plymouth	8½	8½	8½	8½	—	8½	7½	5½	5½	5½
Bath	7½	7½	8	8	7½	7½	7	5–5½	5–5½	5–5½
Cheltenham	8½	8½	8½	8½	—	8½	7¾	5½	5½	5½
Exeter	8	8	7½	7½	7½	7½	6½	5	5	5
Gloucester	7½	8½	8½	7½	7½	8¼	7¾	5½	5½	5½
Hereford	7½	8	7½	8	7½	7	6½	5	5	5
Stroud	7	7	7	7	7	7	6½	4½	4½	4½
Blackburn	10	10	9¾	9	9½	9½	9½	6½	7	7
Bolton	10	10½	10	10½	10	9	9	—	—	—
Liverpool	10½	10½	10½	10	10	10	9½	6–6½	6–6½	6½
Manchester	10	10½	10	10½	9	10	9½	6	6	7½
Oldham	10	10½	10	9½	8½	10	9½	6	7	7½
Preston	9½	10	9¼	9	8½	9	8½	5½	6	6
Birmingham	10	10	10	10½	9	10½	9	7	7	7
Derby	9	9	9	9	9	9	8	6	6	6½
Leicester	9½	9½	9½	10½	9	9½	8	7	7	7½
Nottingham	10	9½	9½	10	9	9½	9	7	7	7½
Norwich	8	8	8	8	8	8	6½	5	5	5
Cambridge	9	8½	8½	9	8	9	7	5½	5½	5½
Oxford	9	8	8½	8½	8	8½	7	6	6	6
Southend	9	9	9	9	Piece-work	9	7	6	6	6
St. Albans	9	9	9	10	8½	9	8	6	6	6
Grays	—	10	10	—	—	—	8½	7	7	7
Cardiff	9½	9½	9½	9½	9½	9½	8½	6½	6½	6½
Swansea	9	9	9	9	8½	9	8½	6	6	6
Newport	9	9	9	9	8½	8½	8½	6	6	6
Chatham	8	9	8½	9	9	8½	7	5½	5½	5½
Birkenhead	10½	10½	10½	10	10	9½	9½	6½	6½	6½

The mason's rate given is for bankers; fixers usually ½d. per hour extra.

LONDON.—An advance of ½d. per hour (11d. to 11½d.) will be paid to the bricklayers on and after November 19.

SELBY.—The labourers in this district have given notice for an increase in wages of ½d. per hour (6½d. to 7d.), and the carpenters and joiners have made application for an advance of 1d. per hour (8d. to 9d.).

SHEFFIELD.—The masons in this district have given notice for an increase in wages of 1½d. per hour (9½d. to 11d.).

PROPOSED NEW BUILDINGS AND OTHER WORKS.*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works, at the time of publication, have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; L.G.B. for Local Government Board; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

ABERYSTWYTH.—Plans of proposed new houses at Borth for Mr. R. Williams, and at Talybont for Mr. J. E. Evans, have been approved by the R.D.C.

Alnwick.—A plan, sent in by Mr. Geo. Reavell, jun., Alnwick, has been passed for a new house in Bridge-street, Warkworth, for Mrs. H. S. Johnson, Alnwick.

Arbroath.—The T.C. have resolved to construct an ornamental island on Brothock Bridge, which is the widest thoroughfare in the burgh. The island will be placed exactly in the centre of the Square, and will be oval in form. The Burns Club, it is understood, are about to proceed with the erection of a statue of Burns, and the suggestion has been made that the statue might also be set up on the proposed island. The cost of the improvement will be over £1,200.

Aylesbury.—Plans passed by U.D.C.—Pair of villas, Abbotts-road, for Messrs. Mayne & Son; additions to Horse and Jockey, Buckingham-road; motor-shed, Park-street, for Messrs. Hills & Partridge; extension to house, Buckingham-street, for Mr. C. E. Wallace.

Bexhill.—The L.G.B. have held an inquiry into the application of the T.C. to borrow £4,400 for the construction of groynes.

Birmingham.—The Public Works Committee recommend that £10,420 be spent on road construction and widening in connection with the Egbaston town-planning scheme, and state that plans for a considerable number of houses have been deposited. Proposals are also being made to construct an underground convenience at Aston Cross (£2,750).

Bognor.—Building development in the western end of the town will shortly be advanced another stage by the erection of small villa residences on the fair field.

Brixton.—The L.C.C. have refused consent to the erection of a building for Mr. D. Greig, on the application of Mr. H. P. Wyatt, on the site of 17, Acre-lane, in the absence of a proposal to dedicate certain land to the public.

Bushey.—Plans passed by U.D.C.:—Alterations to three cottages, School-lane, for Messrs. W. Bailey & Sons; five cottages, Titian-avenue, for Messrs. Jaggard Bros. (subject to drainage agreement); new road, Bournehall Estate, for Messrs Clark Bros.

Camberwell.—Rebuilding of Southampton-street School for the L.C.C.

Cardiff.—The Housing Committee are recommending the T.C. to spend £5,280 on workmen's houses.

Carshalton.—Plans approved for two houses at The Chase, Smithambottom-lane, for Mr. Pratchett.

Cheadle.—Plans approved by the U.D.C.:—Mr. R. Whipp, for a mission hall and men's club at Hulme Hall-road; Mr. J. A. Meachin, for a pair of semi-detached houses at Beech-avenue, Gatley; Mr. James Booth, for a pair of semi-detached houses at Manor-road; Mr. H. Cosgrove, for a proposed 12-yds. street off Finney-lane; the Hon. Secretary of the Social Institute, Finney-lane, for additions to that institute.

Chelmsford.—Plans for six cottages at Danbury, six at Little Baddow, and four at Sandon, which are to be erected by the R.D.C., have been approved. Application is to be made to the L.G.B. for power to borrow £1,526 for the water supply to Baddow.

Chirk.—Plans approved by R.D.C.:—Two villas for Messrs. W. Y. Craig & Sons; a villa for Mr. J. Mates, Lower Halton; and additions to house belonging to Mr. Absolam Williams, Chirk.

Christchurch.—Additions to 46, High-street, for Alderman D. Galbraith.

Clapham.—The L.C.C. have passed plans for the erection of three buildings at the corner of Corunna-terrace and Linford-street, Battersea, on the application of Mr. E. W. Collins.

Cleethorpes.—The Surveyor has submitted a scheme to the U.D.C. for the construction of a marine lake along the front of the Kingsway. The approximate area was 22 acres, and the works, he estimated, could be carried out for £10,000. The Council authorised the Engineer to prepare plans and sections and full details of the scheme in order to submit it to the Humber Conservancy with a view to obtaining their approval.

Cockermouth.—It is proposed to build a cottage hospital on a site offered by Lord Leconfield.

Disley.—Plans passed for two large dwelling-houses for Colonel Charlesworth and Lady Victoria Murray, to be erected near the Tennis Club ground.

Droylsden.—Four houses for Fairfield Tenants, Ltd.

Dudley.—The Board of Education has approved of the plans prepared by Mr. A. T. Butler for alterations at Kate's-hill and Park Schools, and the plan of Mr. Grazebrook for Wolverhampton-street School.

Dulwich.—Plans approved by L.C.C.:—Four houses on south-eastern side of Canonbie-road, Honor Oak, for Mr. C. E. Hands, on application of Mr. H. J. Hewlett.

Ealing.—Laundry in Darwin-road. Architect, Mr. H. S. Hofman Hall.

East Ashford.—Plans approved for a bungalow at Burton-road, Kennington, and for a laundry at Kennington, for Mr. E. Benzie.

Edinburgh.—Plans passed by the Dean of Guild Court:—Caledonian Railway Company, alterations at Princes-street Station Hotel; W. A. Ritchie and another, alterations at 25 and 27, Abbeyhill; Edinburgh Ice and Cold Storage Company, Ltd., addition, Lochrin-place-lane (interim); and T. Scott & Co., Ltd., deviation, 1, Heriot-bridge. The Public Parks Committee have given instructions for plans to be prepared for four workmen's houses on Calton-hill.

Eton.—Plans passed by R.D.C.:—New engineering works in Station-road, Langley, for Mr. C. W. Franklin; two cottages in Swallow-street, Iver, for Mr. A. F. Dutton; new shop and stables at Gerrard's Cross for Mr. T. H. Roff; four new houses in Brans-lane, Horton, for Messrs. T. B. Lane & Son; house in Compasses-road, Littleworth Common, for Miss Gertrude Aird; house at Bran's-hill, Bath-road, Colnbrook, for Mr. H. Roberts; alterations to "Blythewood," Hitcham, for Mr. L. H. Hanbury; alterations to Ankerwycke Lodge, Staines-road, Wraysbury, for Mr. L. Barnes; stable at Gerrard's Cross for Mr. W. E. Preston; garage at Gerrard's Cross for Mr. W. E. Preston; garage at Gerrard's Cross for Messrs. Baldwin & Duck; and alterations to a house in Church-road, Taplow, for Mr. G. Rance.

Evesham.—The L.G.B. have sanctioned the R.D.C. borrowing £4,300 for building cottages at Offenham and £2,050 for the site.

Finchley.—Application has been made by the U.D.C. for a loan for purchase of the land lying between Woodhouse-road and Summers-lane, containing approximately 36 acres, in connection with workmen's dwellings. It is proposed to allocate the land as follows:—For purposes of a new elementary school, 6 acres; for purposes of open spaces, 5 acres; and for purposes of workmen's dwellings, gardens, etc., 25 acres—total, 36 acres.

Folkestone.—Brigadier-General Haldane has received over £2,000 towards the proposed library and statue to be erected at the camp in memory of Sir John Moore.

Frinton.—The U.D.C. are about to lay out a new cemetery at Kirby Cross. The L.G.B. have sanctioned the scheme, which will cost £1,417. Plans have been passed for a house in Raglan-road for Mr. A. J. Farrington, and additions to "Gladsmuir," Hadleigh-road, for Mr. C. Slater.

Fulham.—Theatre on site of 444, Fulham-road, for Mr. O. Stoll.

Gainsborough.—Plans for a Primitive Methodist chapel at Laughton have been approved.

Great Missenden.—The Board of Education have approved plans for the enlargement of the infants' room of the Church of England school.

Hackney.—Plans approved by L.C.C.:—Building on site of Nos. 1 and 3, Urswick-road, for Messrs. Barrow & Son, Ltd., on application of Messrs. J. Hamilton & Son; alterations to 10, Tower-street, for Messrs. A. W. Early & Co., on application of Messrs. Hood Bros.; addition to premises of Messrs. Reeves & Son, Ltd., Ashwen-street, on application of Messrs. J. Hamilton & Son.

Hampstead.—Plans approved by L.C.C.:—Addition to Tower Royal Works, on the application of Mr. F. S. Hammond

Harpenden.—Plans approved by U.D.C.:—Machine-room in Vaughan-road for Mr. D. J. Jeffery; a drainage system for twelve houses in Ambrose-lane for the National Children's Home and Orphanage.

Hove.—Enlargement of St. Thomas's Church.

Invergordon.—The Scottish National Council of Young Men's Christian Associations have resolved to proceed with the erection of a Sailors' Home at Invergordon. The scheme to begin with provides fifty-two bedrooms, a billiard-room, hall, lounge, social-room, refreshment-room, bowling ring, etc.

Kensington.—Plans passed by L.C.C.:—Fifteen houses on west side and fifteen houses on east side of Highlever-road, on application of Mr. A. S. Franklin.

Lambeth.—Plan approved by L.C.C.:—Additions to Union Jack Club, Waterloo-road, on application of Mr. W. Cave.

Ledbury.—Infant school by Herefordshire C.C.

Lewisham.—Plans passed by L.C.C.:—Five houses on south side of Rushford-road, Crofton Park, on application of Mr. J. Nicholls.

Lincoln.—The B.G. have decided to exclude the proposed phthisical block from the new infirmary they are about to build, thus reducing the number of beds from 200 to 134. This action has been taken on a representation from the Insurance Commissioners, who are urging the three County Councils of Lincolnshire and the Borough of Grimsby to jointly erect a sanatorium. The Board have agreed to the erection of a laundry and vagrant wards at the Workhouse, at an estimated cost of £2,600.

Linthwaite.—Plans approved of two shops at Hoylehouse for Mr. Seth Sutcliffe, and extensions to mill premises at Spring Grove Mills for Messrs. George Mallinson & Sons, Ltd.

* See also our list of Competitions, Contracts, etc., on page 439.

Liverpool.—The Works Committee of the Mersey Harbour Board recommend widening the shed on the west side of Alexandra Dock to provide the necessary railway sidings, and to carry out certain paving of the roadway adjoining, at a total estimated cost of £25,850.

Llandrindod Wells.—The L.G.B. have sanctioned an expenditure of £4,250 on the waterworks.

Llandudno.—The Council are taking in hand the scheme for the extension of the promenade from Craigydon to the Little Orme, and to improve the awkward curve in the roadway at the end of the parade. It is also intended to carry out another section of the scheme for developing the Happy Valley.

Lyminster.—The West Sussex E.C. has instructed the Architect to prepare revised plans and estimates for improvements to the Council school.

Macclesfield.—The Hospital Committee of the T.C. have adopted the plans of the Borough Surveyor for a new infectious hospital, estimated to cost £7,671.

Maidenhead.—The L.G.B. have held an inquiry concerning the application of the T.C. for sanction to borrow sums amounting to £1,750 for the improvement of Grenfell-road and St. Mark's-road.

Maldens.—The L.G.B. have sanctioned loans of £5,567 for extension of sewage-disposal works, £750 for machinery and fencing in connection therewith, and £1,091 for reinforced concrete work.

Mansfield Woodhouse.—New police-station for Notts Standing Joint Committee.

Marylebone.—Plans approved by L.C.C.:—Addition at rear of 53, Carlton-hill, for Mr. A. H. Hope Smith, on application of Mr. W. S. Moody. Consent is refused to additional cubic extent in respect of the erection of an additional story to factor. premises in Blackhorse-yard, Rathbone-place, for Messrs. Brook Bros., on the application of Messrs. New & Sons.

Meriden.—Plans passed by R.D.C.:—Bungalow, Marston Green, Coleshill, for Mr. A. E. Bullpit, of Marston Green; chapel and school at Nether Whitacre for Wesleyan Chapel Trustees; pair of cottages, Burton Green, Berkswell, for Mr. G. Floyd, of Berkswell; and porch and vestry at the Congregational Church, Coleshill, for the Trustees.

Middlesbrough.—The Borough Engineer has been instructed to prepare a new plan for the improvement of the public mortuary.

Morecambe.—Plans passed:—Mr. Orchard, for a warehouse in Yorkshire-street; Mr. T. Walker, for a house in Park-road; two houses at Torrisholme for Mrs. Dodd.

Mytholmroyd.—Plans passed for two semi-detached houses on the Caldene Estate for Messrs. Helliwell & Pickles.

Norwich.—The T.C. have applied to the L.G.B. for consent to borrow £25,000 for purposes of the electricity undertaking, and £5,470 for widening the River Wensum, and an inquiry has been held.

Norwood.—Plans passed by L.C.C.:—Reading-room at St. Saviour's Almshouses, on application of Messrs. H. Langston & Co.

Nuneaton.—Plans passed by T.C.:—Stable, Countess-road, for Mr. G. H. Twist; motor-house, Park-avenue, for Mrs. J. Carter; house, Wheat-street, for Mr. C. Blakeway; additions to house, 55, Edward-street, for Mr. J. Whetstone; four houses, Bracebridge-street, for Mr. W. E. Mayo; alterations to premises, Abbey-street, for Mr. W. J. Yoxall; additions to house, Heath End-road, for Mr. John Hardy; additions to premises, Upper Abbey-street, for Mr. C. Reader; additions to Conservative Club, New Bridge-street, for the Conservative Club Company; additions to house, 151, Attleborough-road, for Mr. H. Brown; additions to factory, Freer-street, for Messrs. Ollard, Westcombe, & Co.; waiting-room, Crown Hotel, Bond-street, for Messrs. Lucas & Co.

Oldham.—Plans passed:—Sixteen houses in Ripponden-road for Mr. Alex. Gill; six houses in Lynn-street for Mr. Daniel Serle; phthisis pavilion at the Westhulme Hospital for the Corporation Health Committee.

Paisley.—Plans passed:—The Burgh Corporation, to erect a new swimming pond and offices at the Corporation Baths in Storie-street; Messrs. Eadie Bros. & Co., Ltd., to make an addition to their factory, the Victoria Works, Violet-street; the Trustees of the late William Reid, Maryhill, to erect a motor garage and offices at George-street, Blackhall; and Messrs. Brown & Polson, starch manufacturers, to erect a workers' institute, with relative offices, at Falside-road.

Peterborough.—Master's house at Workhouse; Messrs. Townsend & Fordham, architects.

Pickering.—The U.D.C. have passed plans for a public hall.

Poole.—Plans for a house on the Sandbank Estate for Mr. J. Elford have been passed.

Porthleven.—Drill-hall.

Richmond.—Sanitary conveniences, etc., for the Town Hill Gardens by T.C. (£1,000).

Rotherhithe.—Plans passed by L.C.C.:—Steel and concrete gangway at Butler's Wharf, on the application of Messrs. M. T. Shaw & Co., Ltd.

St. Asaph.—The Surveyor of the R.D.C. has been instructed to prepare plans, etc., for the erection of twelve cottages in accordance with type B of the L.G.B. Memorandum for Llanddulas.

St. George's, Hanover-square.—Plans approved by L.C.C.:—Alterations at 8, George-street, on application of Mr. J. W. Godbolt.

St. Pancras.—Rebuilding of Haverstock Hill School for L.C.C.

Seaham Harbour.—Plans passed by U.D.C.:—Twelve houses in Union-street for Mr. H. Kirton; and house off Princess-road for Mr. G. S. Wright.

Shipley.—The L.G.B. have held an inquiry relative to the Council's application under the Housing of the Working Classes Act, 1890, for sanction to borrow £4,800 for the erection of twenty-one houses on land owned by them at Dockfield.

Southport.—The T.C. have decided to provide open-air baths, abutting on the Marine Drive, at a cost of £4,500, and a shelter and refreshment-room adjoining the children's playground, to cost £550. The scheme is for eighteen bungalows in connection with the baths and 150 bathing tents on either side.

Southwark.—Preliminary plans have been prepared by the L.C.C. Architect for a school for physically defective children in Webber-street.

Spalding.—The R.D.C. have decided to apply to the L.G.B. for sanction to borrow £2,000 for the erection of twelve houses in Deeping St. Nicholas.

Stalybridge.—The L.G.B. have sanctioned the application of the Stalybridge Corporation for permission to borrow £6,400 for the extension and improvement of the public baths.

Strand.—Preliminary plans have been prepared by the L.C.C. Architect for a new school for mentally defective children in Mercer-street.

Stratford-on-Avon.—Internal reconstruction of the Garrick Inn by T.C. (£600).

Swanage.—Three-story shops for Messrs. Parsons & Hayter. Plans approved by U.D.C.:—Additional room on the first floor at Melton Lodge, Ulwell-road, deposited by Messrs. Parsons & Hayter; workshop adjoining garage at Shore villa for Mrs. Chapman (Mr. H. Hooke); shed at rear of new shop, Court-hill, for Mr. F. W. Pond (Mr. L. D. P. Way); dwelling-house at Bon Accord-road for Mr. W. Alexander (Mr. G. Hardy).

Swansea.—A site of 7 acres has been acquired by the Sanatorium Committee for a sanatorium. Mr. Morgan, the Architect to the T.C., is preparing plans for 500 houses.

Tadcaster.—Messrs. John Smith's Tadcaster Brewery Company have informed the U.D.C. that they will erect a row of workmen's houses if it is considered absolutely necessary to meet the housing needs.

Ventnor.—Plans for a garage and cottage in Madeira-road for Mrs. Bell have been passed, on the application of Mr. Moore.

Walsall.—New post-office.

Wandsworth.—Plans passed by L.C.C.:—Buildings on eastern side of Garratt-lane, on application of Holloways Properties, Ltd.; thirty-one houses on eastern and western sides of Weybourne-street, on the application of Messrs. Westlake & Graham.

Wells.—The Somersetshire C.C. have decided to acquire a site for a permanent sanatorium at Dulcote, near Wells.

Woking.—Additions to Electric Empire; extension of shop premises in Goldsworth-road for Messrs. Tyler & Co.

Wolverhampton.—Alterations at the lecture-hall, Garrick-street, for T.C.

Wooburn.—The Board of Education have approved plans for the erection of a Council school at Wooburn, and the L.G.B. have sanctioned loans of (*a*) £5,361 for the provision of the school, and purchase of the site (£400), and (*b*) £314 for furniture and fittings.

GENERAL BUILDING NEWS.

FAILSWORTH TOWN HALL.

Mr. Ernest Ogden is the architect for the new offices which have recently been erected for the Failsworth District Council. The Council chamber is 32 ft. by 22 ft., and there are other rooms for the various departments of the Council.

BUILDING AT EARLSDON.

A new church and parish hall are being erected in Palmerston-road, Earlsdon, from the designs of Mr. T. R. J. Meakin. The estimated cost of the work is £1,750, and the contractors are Messrs. Orr Brothers.

PENSHAW RAILWAY-STATION.

Having been recently destroyed by fire, this station is now to be rebuilt from plans prepared by Mr. William Bell, architect to the North-Eastern Railway Company. The building will include a booking hall, 71 ft. long and 27 ft. wide, parcels' and stationmaster's offices, waiting-rooms, etc. The contractors are Messrs. Stephen Fenwick & Co., of Newcastle.

ALTERATIONS AT DRAYTON PARK.

Alterations are being carried out at the Express Dairy Company's bakeries at Drayton Park. Messrs. Young & Hall are the architects, and the work is being carried out by Messrs. E. A. Roome & Co., of Hackney.

BUILDINGS AT WESTMINSTER, S.W.

A building of eight stories is to be erected in Buckingham-gate, S.W., adjoining the building of the National Insurance Commissioners, of which Messrs. Palgrave & Co. were the architects. The new building, by the same architects, is to be built for another Government department, and will follow somewhat the same lines in elevation as the adjoining building.

HERTS COUNTY MUSEUM.

Mr. Hodgson, of Messrs. Hodgson & Ogilvy, is the architect for the proposed enlargement of this museum. The enlargement will consist of the addition of two rooms at the rear of the present lecture-room. The work is estimated to cost about £1,100.

VILLAS AND BUNGALOWS, SURBITON, S.W.

The well-known riverside estate known as Ditton House is to be developed and villas and bungalows are to be erected thereon. Messrs. Palgrave & Co. are the architects for the developments.

FIRE-STATION, BLACKBURN.

It is proposed to erect a new fire-station and dwellings in Blackburn, and as a result of a local competition for architects the designs of Mr. Walter Stirrup have been adopted. The assessor in the competition was Mr. F. G. Briggs, of the firm of Messrs. Briggs, Wolstenholme, & Thornely, and the estimated cost of the work is £24,960.

TRADE NEWS.

Under the direction of Mr. G. M. Tune, architect, Llangollen, Boyle's latest patent "air-pump" ventilators have been applied to Primitive Methodist Church Schools, Chirk.

The Mendine Company, of Clarence House, Arthur-street, E.C., have sent us particulars of their liquid Scotch glue. It is largely used by H.M. Office of Works, War Office, Crown Agent for the Colonies, London County Council Works, Secretary of State for India, and many builders, contractors, shopfitters, etc. Requiring no heating, and being always ready for use, it should be invaluable as a substitute for hot glue.

The Deaf and Dumb Schools, Doncaster, are being ventilated by means of Shorland's patent exhaust roof and special inlet ventilators by Messrs. E. H. Shorland & Brother, Ltd., of Failsworth, Manchester.

Messrs. Tredegar & Co., of 53, Victoria-street, Westminster, S.W., have just issued an interesting little booklet entitled "Samuel Pepys and his House," illustrated by Mr. F. H. Townsend, Art Editor of *Punch*, and which they will send to anyone applying for it free of charge. At the firm's showrooms may be seen electric fittings, wallpapers and decoration schemes, etc., and particulars are given to anyone wishing to redecorate their homes by experts in each department, who are prepared to give estimates free of charge.

Messrs. Moule's Patent Earth Closet Company, Ltd., of Guilford-street, Gray's Inn-road, W.C., send us particulars of their new patent earth closets. They are made for use in outside sheds, inside the house, and in a portable form, such as could be placed in any spare room indoors. The price varies from £1 19s. to £4.

Mr. R. H. Lasch, of 30-33, Bolsover-street, W., has issued leaflets describing his metal sheet-trimming apparatus and his ferro-concrete iron-shearing machines. The former is a device for cutting curved metal sheets, such as corrugated sheets, pipes, etc., by hand, and it is stated that this works much faster, more accurately, and produces cleaner cuts than hand or lever shears. The machine can be attended to by one man. The ferro-concrete iron-shearing machines are made in two types, one being single geared and the other double geared. The double geared is for cutting the thicker kinds of iron through downward pressure. Other machines made by Mr. Lasch are the ferro-concrete iron-bender, and the Universal ferro-concrete iron-bar bending machine with ratchet-gear.

WATER SUPPLY, LONGTOWN.

The Longtown (Cumberland) Rural District Council have for some time had under consideration the provision of a satisfactory water supply for the district of Bolton Fell and Moss End. After inviting applications from engineers, it was decided at their meeting on Tuesday last week to instruct Messrs. Taylor & Wallin, of Cathedral-buildings, Newcastle-upon-Tyne, to make a survey of the district and report fully upon the matter.

A BUILDING DERRICK.

The Alfred E. Norton Company, of New York, have designed and constructed a large derrick for use in the erection of wide-area edifices. The mast is 110 ft. high, and the boom, of 100 ft., will sustain 15 tons. These are made in three parts, with separate centre-pieces, so that the boom and mast can, on occasion, be reduced to 75 ft. and 86 ft., respectively, for a maximum capacity of 20 tons. The derrick, when dismantled, can be shipped in its entirety in one car.

NEW PEARL ASSURANCE OFFICES, HOLBORN.

In reference to the information which we gave with the illustrations of the new Pearl Assurance offices, Holborn, in our issue for October 3, we are informed that the greater portion of the tilework at these offices, amounting to from 8,000 to 10,000 yds. super., being for the main offices, lavatories, and principal staircases, has been executed by the Art Pavements and Decorations, Ltd., of Emerald-street, Theobald's-road, E.C.

STAINED-GLASS WINDOW, BUCKLEBURY.

THIS unusual example of stained glass is the joint production of Mr. Frank Brangwyn, A.R.A., and Mr. Sylvester Sparrow, Mr. Brangwyn supplying the cartoon and personally supervising the work, and Mr. Sparrow carrying it out in glass. The subject of the window is Christ, crucified between two thieves. The device of showing only the upper half of the figures at the foot of the Cross was adopted in order to make the figure of Christ as large as possible.

The drawing has all the vigour and breadth characteristic of Mr. Brangwyn's work. He has chosen that supreme moment when the Divine Victim, with body at the utmost tension and face upthrown to the light streaming from above, utters His despairing cry, "Eli, Eli lama sabacthani!" Conscious of the divine nature of the Man, the two thieves are embodiments of Hope and Dejection. At the foot of the Cross kneels a most impressive figure with bowed and veiled head. By the beautiful hands and fair flesh shining through the sleeve we know it to be Mary Magdalene, with head bowed in the deepest contrition.

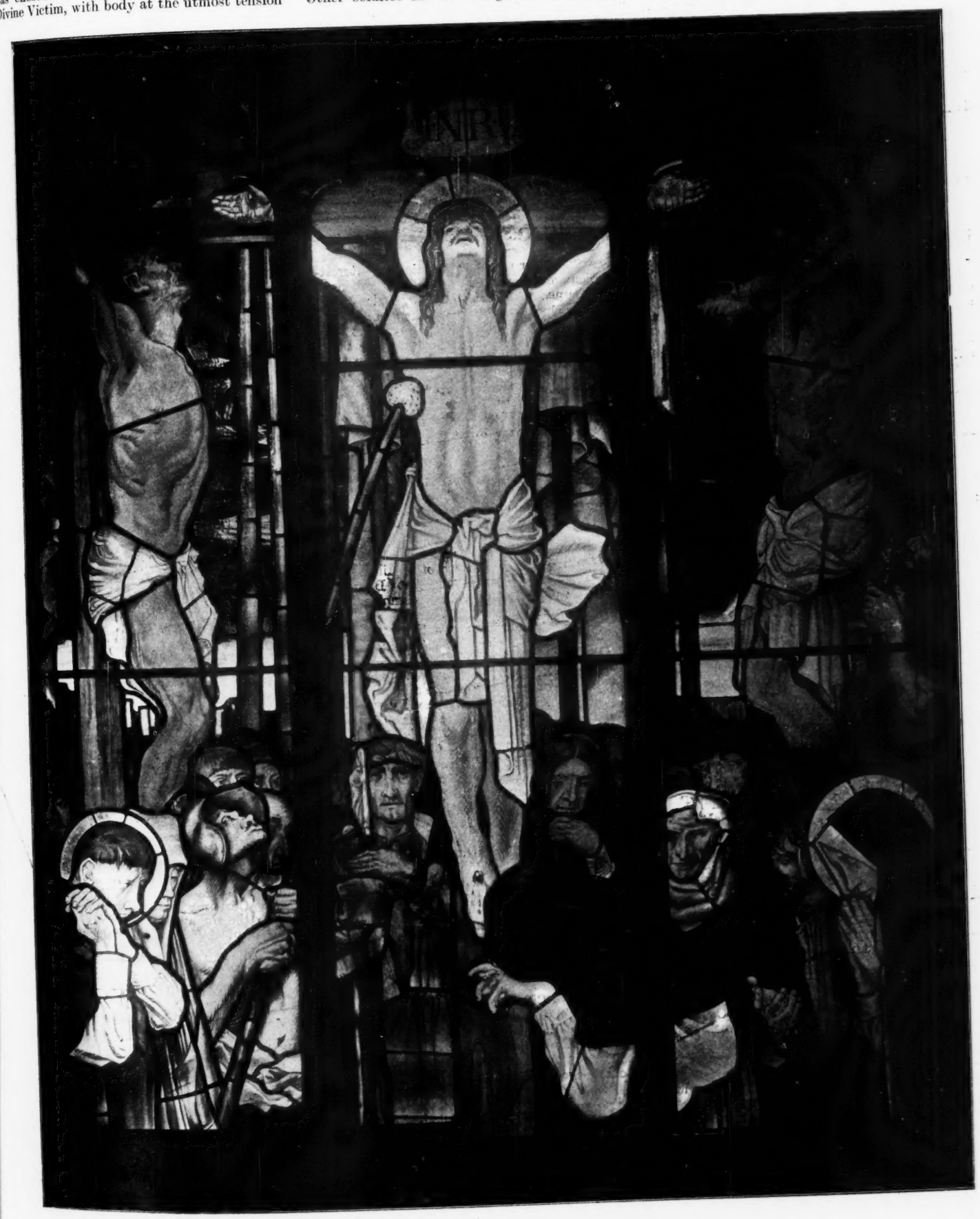
At the foot of another light stands the Mother of Sorrows as embodiment of Affliction, to whom one in the background offers comfort.

At the foot of the other light stands St. John—a thoughtful figure with hands clasped in grief. In the same light a soldier offers the sponge, dipped in gall and vinegar, on the end of a reed. Other soldiers in the background bear flags. A sorrowful crowd of men and women stand round the foot of the Cross.

The lights in the tracery are filled with a continuation of the sombre sky with livid streaks of light across it. The sun and moon are darkened, and black birds of sinister import fly across.

The colour scheme is of extreme richness. Mr. Sparrow, by seizing the products of chance combined with the use of double and treble plating, has attained brilliance and depth rarely seen in modern work. On a dark-blue pall-like sky the cool flesh of Christ, and His nimbus, stand out with unearthly radiance.

Behind the Cross are flaming flags of gold-ruby. The wonderful blue of the Virgin's robe and the sombre red of St. John's cloak seem to fuse in the violets and purples of the Magdalene.



Stained-Glass Window: St. Mary's Church, Bucklebury.

Designed by Mr. Frank Brangwyn, A.R.A. Executed by Mr. Sylvester Sparrow.

Mr. Sparrow's intimate knowledge of the material and his method of preserving its purity and brilliance are well known. We need say no more of his work than that he has faithfully carried out Mr. Brangwyn's ideas and wishes.

The window is the gift of Mrs. Webly-Parry.

ABOLITION OF THE OFFICE OF DISTRICT SURVEYOR.

THE recent occurrence of a fatal fire in Kensington and the alleged delay in applying the provisions of sect. 9 of the London Building Acts (Amendment) Act, 1905, have afforded an opportunity to the Council of the Royal Borough of suggesting to the London County Council the advisability of considering whether any of the duties imposed by the London Building Acts upon the latter body could not better be discharged by the Metropolitan Borough Councils, and whether the task involved in the enforcement of sect. 9 of the London Building Acts (Amendment) Act, 1905, is not of too onerous a nature to be satisfactorily performed by any single authority. The question has been considered by the Metropolitan Boroughs Standing Joint Committee, who have resolved to recommend their Council to support the representations made by the Kensington Borough Council in favour of the devolution of much of the work, which, under the London Building Acts, has to be performed by the London County Council, upon the Borough Councils; and the Joint Committee particularly urge, in connection with any such devolution, that the office of District Surveyor should be abolished and the duties transferred to the Metropolitan Borough Councils.

The proposals above outlined are of such importance that we trust they will receive the fullest possible examination before any attempt is made to act upon them.

With the implied criticism of the London County Council's action under sect. 9 of the Act of 1905 we are not particularly concerned at the moment, though we may remark, in passing, that officials of a central body dealing with the whole of London would appear to have a better opportunity than the servants of local bodies of acquiring that wide experience so desirable in dealing with measures of protection against fire. Our immediate object is to draw attention to the attempted destruction of the particular system of public supervision of building works, which, in spite of occasional misdirected efforts on the part, unfortunately, of the London County Council as well as of others, has on the whole worked admirably. The drawbacks attending the supervision of works by the officials of local bodies not infrequently manifest themselves in the provinces, and would do so to a much greater extent in the metropolis. When the Act of 1894 was framed the desirability was generally acknowledged of having, as District Surveyors, men of experience, ability, and standing, and of securing to those men a position that would enable them to resist any improper pressure brought to bear upon them by persons or corporations interested in the works which the surveyors were required to supervise. It was therefore enacted that the District Surveyors, once appointed, should be subject to dismissal only with the consent of a Secretary of State, although the Superintending Architect, being an officer of the London County Council, was made "removable by the Council" at pleasure. This position of the District Surveyor, which we hold to be a matter of the greatest importance and value to the public, was emphasised by the case of the City of Westminster *v.* Watson, in which it was held that District Surveyors have a statutory position independent of the London County Council, whose direct control thus practically ceases so soon as the surveyor is appointed.

The Act gave the Council freedom to secure men of experience by leaving the District Surveyorships open to private practitioners, and at the same time it marked the lesser need of independence and the more purely official status of the Superintending Architect by saying that he should not practise as an architect or follow any other occupation.

It is unfortunate that the Act's intention as to the District Surveyors is only shown by the careful omission, in their case, of the special restrictions imposed in the other, and by the implication in sect. 144, and that for some years past the Council has seen fit to so arrange matters as to prevent practising architects from holding these posts, for it is obvious that many cases must arise in London in which the training and experience only obtainable in the course of practice would be invaluable.

Nevertheless the locally independent District Surveyor as he exists in London to-day is most valuable to the public, and any effort to substitute men under the control of local bodies, whether made with the benevolent intention of relieving the London County Council of some of its worries, or for any other reason, will render the public, and especially the building public, a considerable disservice. But, seeing that the District Surveyors are, to so large an extent, still independent of the County Council, we are not quite convinced of the disinterestedness of the borough representatives, and possibly the reply of the County Council to the representations of the Kensington Borough Council (to the effect that, while ready to give very careful consideration to any conclusions arrived at by a conference of Metropolitan Borough Councils, the Building Acts Committee were not aware that there was any considerable dissatisfaction with the present central administration of the London Building Acts) is also an indication that among the voices heard in its deliberations upon the matter was one that said, "Timeo Danaos et dona ferentes."

MAGAZINES AND REVIEWS.

THE *Studio* for October contains an interesting article on Léon Bakst's designs for scenery and costume, well illustrated by colour and other reproductions. Perhaps the most charming of the many illustrations given is the "Fantaisie sur la Costume Moderne Atalante." We are glad to note that Bakst does not take himself too seriously. "Art," he says, "is a plaything, and an artist's work will be good only when it has been great fun doing it." The paintings of James Whitelaw Hamilton, A.R.S.A., R.S.W., form the subject of an illustrated article by Mr. A. Stoddart Walker. "The Departure of the Boats" and "After Sundown" are excellent examples of the artist's work. Etchings by Mr. Louis Orr and "The Colour Lure of Mexico," by Helen Hyde, follow; and the Royal Hungarian arts and crafts are treated by Mr. A. S. Levetus, who shows us that *L'Art Nouveau* still has a home in Europe! "Some Pen-and-Ink Sketches of Equihen," by Mr. Lester G. Hornby, "Recent Domestic Work," and "Studio Talk" complete the number.

The *Burlington* contains an article on "Some Pictures of El Greco," by Mr. Roger Fry; "An Elizabethan Portrait," by Mr. Lionel Cust; "Chotscho," by Mr. Laurence Benyon; a review of Mr. Aymer Vallance's book on the Old Colleges of Oxford, by the Rev. A. C. Headlam, D.D.; "Three Elizabethan Glasses," by Mr. Bernard Rackham; "A New Venetian Primitive in the Galleries of the Accademia," by Gino Fogolari; "Mediæval and Later Engraved Gems at the British Museum—II.," by Mr. O. M. Dalton; "The Reconstruction of a Polyptych by Signorelli," by Tancred Berenius; the fifteenth number of "Notes on Italian Medals," by Mr. G. F. Hill; "Early Furniture—XII.," by Mr. Aymer Vallance; "The Symbolism of Certain Catacomb Friezes"; "Notes" and other matter. The number is, as usual, finely illustrated and produced.

The *Connoisseur* contains an article on "Some Old Duben Colonial Furniture," by Mr. J. Penry Lewis, C.M.G.; "Staffordshire Porcelain and its History"; "Some Old Wrought-iron Gates in Hampstead," by Mr. Starkie Gardner; an article on Chinese Porcelain and Applied Art at the Manchester City Art Gallery; and the usual "Notes and Queries" and "Notes." The two colour illustrations—one of Lady Charlotte Hill Countess Talbot, from the pastel by Daniel Gardner, and "Le Désir de Plaire," after Boucher—are excellent.

METROPOLITAN ASYLUMS BOARD.

AT the fortnightly sitting of the Metropolitan Asylums Board on Saturday a letter was received from the Local Government Board authorising the managers to erect a groyne and wave screen at Rustington at a cost not exceeding £800.

Darenth Industrial Colony.—Approval was given for the extension of six pavilions for the accommodation of feeble-minded patients. The estimated cost is £200 per pavilion.

THE LONDON COUNTY COUNCIL.

THE usual weekly meeting of the London County Council was held on Tuesday in the County Hall, Spring-gardens, S.W., Mr. Cryil Cobb, Chairman, presiding.

Before dealing with the reports of the various Committees the Chairman read his review of the work of the Council during the past year. He referred to the Tabard-street scheme under Part I. of the Housing of the Working Classes Act, 1890, which provides for the clearance of three insanitary areas in Southwark and Bermondsey, which has received confirmation by the Local Government Board. The work of demolition has been commenced and plans of the new working-class dwellings to be erected on the site are being prepared. The development of the Totterdown Fields housing estate at Tooting is now complete, and the financial prospects of the undertaking appear to be satisfactory. During the year the Council approved estimates for the development of the remainder of the Norbury Estate and the Old Oak Estate, Hammersmith. With regard to street improvements, several schemes had been undertaken, including the widening of further portions of the Strand and the improvement of certain tramway routes. The Council also agreed to co-operate with the City Corporation in the widening of a portion of Leadenhall-street. A proposal for further improving the approach from Charing Cross to the Mall had been considered by the Council, and conferences were held with his Majesty's Government and the Westminster City Council with a view to the formulation of a joint scheme.

In connection with cross-river communication, additional means of crossing the Thames had been provided by the construction of the Woolwich footway tunnel, which was opened to the public on October 26, 1912.

Loans.—The Finance Committee recommended, and it was agreed to make, a loan of £13,974 to the Lewisham Borough Council for paving works.

Tenders.—Tenders were received for various works as follows:—For redrainage works at the Newington Green School, N.; for providing and fixing hot-water heating apparatus at the Lancaster-road School, Kensington; for providing steam boilers at the Furzedown Training College, Wandsworth.

THE METROPOLITAN WATER BOARD.

AT the monthly meeting of the Metropolitan Water Board on Friday the following matters were dealt with:—

New River Head.—In view of the decision of the Board to erect their central offices on their land in Rosebery-avenue, it was decided that the Stores Committee be instructed to bring up a scheme for the construction of new filter-beds to take the place of those to be abandoned at New River Head.

Contract Completed.—It was reported that Messrs. Charles Wall, Ltd., have satisfactorily completed their contract (£14,817) for the erection of pumping-station, etc., at Chingford.

Quantity Surveyors.—Mr. C. W. Brooke, A.R.I.B.A., was appointed to prepare bills of quantities in respect of the erection of the Botany Ball water-tower building, and Messrs. George Corderoy & Co. were appointed to prepare the quantities in respect of the construction of the Twickenham and Richmond tunnel.

NEW PROMENADE, HUNSTANTON.

THE illustration shows the new promenade with shelters underneath erected near the pier at Hunstanton. It was designed by and carried out under the direction of Mr. J. C. Walker, the Town Surveyor. It has been built entirely of reinforced concrete, without a steel or timber beam or similar support. The shelters are 200 ft. long, 16 ft. wide, the reinforcement being steel rods and lock-woven mesh, supplied by Messrs. G. F. West & Co., Caxton House, Westminster. There are five 40-ft. spans, each span being subdivided into four divisions. The roof to the shelters which forms the promenade was constructed of 6 in. concrete: the first 5 in. were proportioned 4 to 1, the aggregate being all beach shingle carefully washed and graded, whilst the top was finished off with three parts ¼-in granite chippings, graded

New Promenade, Hunstanton.

down to dust to one of cement and 5 lb. of Pudlo to every 100 lb. of cement. It was suggested at first that a coating of asphalt should be given on the top, but it was decided to finish off in concrete, with the addition of the waterproofing powder Pudlo.

LAW REPORTS.

COURT OF APPEAL.

(Before Lords Justices VAUGHAN WILLIAMS, BUCKLEY, and KENNEDY.)

Notices to Repair and the Conveyancing Act: Joseph Jolly *v.* Brown and others.

THIS case was heard on the 14th and 15th inst., upon the appeal of the defendant, Mr. Fox, from an order of a Divisional Court reversing a decision of Mr. Edward Pollock, the Official Referee, respecting a notice as to the repair of property.

Mr. Pollock, K.C., in opening the appeal, said the question arose as to whether or not the notice which was served by the plaintiff under sect. 14 of the Conveyancing Act of 1881, which was a condition precedent to the landlord enforcing forfeiture, was a good and sufficient notice or not. The action was commenced by the issuing of a writ on June 27, 1912, and the action was brought to recover possession of six dwelling-houses situate in Bethnal Green. The ground on which possession was claimed was that there had been a breach of the covenant to repair, and that that covenant gave the landlord power to take possession. It was claimed for the landlord, Mr. Jolly, that the proper notice had been served to comply with sect. 14 of the Conveyancing Act, and that, owing to non-compliance with that, the forfeiture was complete, and the landlord was entitled to possession. The matter went for trial before Mr. Edward Pollock, an Official Referee. At that trial it was intimated by counsel that the point to be taken by the defendants was that no proceedings could be successful, because the notice that had been served did not sufficiently comply with sect. 14 of the Act. The Official Referee held that that was so, and he decided, therefore, that there was no sufficient notice. He therefore gave judgment for the defendants. From that judgment there was an appeal to a Divisional Court, consisting of Justices Avory and Lush, and that Court reversed the judgment of Mr. Pollock, holding that the notice given by the landlord was sufficient. He submitted that though these were small houses, the tenants were unable to comply with the landlord's notice, because he had not sufficiently specified the repairs he required doing. There had been an honest attempt to comply with the notice, but the tenants were in a dilemma because they did not know what the landlord required. What had been served upon the tenants was a mere general specification, which might have been written out by a person who had never inspected the houses.

A long discussion ensued as to the question of the notice, and whether it was sufficiently specific according to sect. 14, and Mr. Pollock proceeded to quote authorities in support of his appeal.

Lord Justice Buckley asked if it would not be a sufficient notice if the landlord requested the tenant to put fresh plaster on the walls, repair the roof by putting on fresh tiles, without specifying the number of tiles in a certain row or the exact position of the hole in the wall?

Mr. Pollock said he would not disagree with that, but it was not sufficient merely to say repair window-sills, brickwork, and walls without saying to which house of the six reference was made. If it meant the whole of the houses the notice should say so. It was not fair to leave it to the tenant to use his own discretion or engage someone to give an opinion. The whole notice here was far too vague.

Lord Justice Buckley: If the landlord referred to eight walls that required repairing, as he said, and the tenant found there were only six, would that be a sufficient notice?

Mr. Pollock: Yes.

Lord Justice Kennedy thought Mr. Pollock was putting a burden on the landlord never intended by the Act. If only a few tiles required repairing it was not intended that the landlord should employ a surveyor to draw up a specification.

Mr. Pollock: According to the judgment of Mr. Justice North I beg to differ from your Lordship. This Act was passed to put a tenant in a better position and not a worse one, which would be the effect if your Lordship's view is the correct one.

Lord Justice Buckley: It is a matter of degree. It is a question if the tenant has had a reasonable notice to do what is required of him.

Mr. Pollock said the mistake the judges in the Divisional Court had made was that they had not realised the real meaning of the decisions of Lord Russell of Killowen and Mr. Justice North. The tenant had no protection if the notice in this case was sufficiently clear and specific.

Mr. Arnold, for the respondent, contended that his client had complied with the Act, and that the notice was sufficient and specific enough.

The Court reserved judgment.

Approved Society Mulcted in Costs.

A CURIOUS case arising out of the interference of an approved society under the National Insurance Act in a workmen's compensation case came before his Honour Judge Smyly at Bow County Court on Friday last week, when Mr. Martin O'Connor made an application for an agreement to be recorded. The application was made on behalf of Mr. Jonathan Foster, a labourer, of Lerwick's-road, Walthamstow, while the respondent was Mr. Frank Mortimer, a contractor, of Hoe-street, Walthamstow.

Mr. O'Connor said that on March 17 the top of plaintiff's big toe was injured, and it had to be removed. He had been paid compensation up to date, and was now anxious to resume work. He was willing to accept £20 in full settlement. The approved society to which plaintiff belonged objected, however, to the filing of the memorandum of agreement.

Mr. Thomas Durden, an official of the Town Hall Help One Another Society, of Shern Hall, Oliver-road, Walthamstow, said his objection was that the agreement did not release the society from paying any sickness benefits which might arise from this accident. The injured person had given no notice to the society of the accident, and they first heard of it through a notice from the registrar asking if there was any objection.

His Honour: What evidence have you that this is an improper bargain?

Witness: Simply that he has never consulted us.

His Honour: Well, you ought to have looked into it. You have had ever since August 26. How can you form an opinion unless you have seen the man? Really, if the society is going to object every time, they will run themselves into frightful costs.

Witness: We only ask for a letter indemnifying us. There are cases where men have returned to work and have knocked their foot against something and inflammation had been set up.

His Honour: But if there is another accident there will have to be a sufficient scheme of compensation.

Dr. Baxter said that, in his opinion, the applicant was fit for light work on the ground. He would be able to climb ladders in about two or three months.

The Judge said all he had to consider was whether the agreement was a reasonable one or whether it had been obtained by improper means.

Mr. Martin O'Connor called attention to the fact that the £20 represented twenty-nine weeks' compensation.

The Judge said he thought the sum named amply adequate, and ordered the agreement to be filed. He ordered the approved society to pay the costs of both applicant and respondent.

OBITUARY.

Mr. E. A. Runtz.

We regret to announce the death, on October 15, at Weybridge, Surrey, of Mr. Ernest Augustus Runtz, F.S.I., of No. 64, Victoria-street, S.W., aged fifty-four years. Mr. Runtz, sixth son of the late John Runtz, of Stoke Newington, and brother of Sir John J. Runtz, was elected a Fellow of the Royal Institute of British Architects in 1908; in 1888 he became a member of the Architectural Association. He practised formerly with Mr. Samuel Walker, in Moorgate-street, as Messrs. Walker & Runtz—the partnership was dissolved in May, 1897. In February, 1899, he took as partners Mr. A. C. Breden, A.R.I.B.A., and Mr. George McLean Ford, F.R.I.B.A., under the style of Messrs. Ernest Runtz & Co., practising at No. 10, Walbrook, E.C.; consequently upon Mr. Breden's death the style of the firm was changed, in July, 1903, to Messrs. Ernest Runtz & Ford, and the firm opened branch offices at Lewes. In January, 1909, the firm removed to No. 64, Victoria-street, Westminster; they dissolved in September of that year, and then Mr. Runtz practised there with Mr. E. M. Runtz as Messrs. Ernest Runtz & Son, architects and surveyors; they dissolved partnership in last January. The London County Council nominated Mr. Runtz and three other architects (together with four architects nominated by the Institute) to prepare designs of elevations for proposed buildings in the Strand and the crescent road, Aldwych, between Wellington-street and Clement's Inn; his designs are illustrated in our number of November 17, 1900. About the same time he was appointed as architect of the new Gaiety Thatre, for an audience of 1,300 persons, and Restaurant, and masonic hall, with premises for Messrs. Short, in the Strand; his plans were, it is understood, revised and modified upon the suggestions of Mr. R. Norman Shaw, R.A., who also made sketches for the exterior designs (see the *Builder* of August 3, 1901, June 21, 1902, and October 24, 1903). Mr. Runtz was the architect of many houses, hotels, theatres, music-halls, homes, and business premises in London and the provinces. His chief architectural works comprise, in London—the remodelling of the Pavilion Theatre, Mile End, 1893-4; Stoke Newington Free Library, 1891-2; Tivoli Restaurant and Buffet, Strand, rearrangement and redecoration: Crown Theatre, Peckham (November 5, 1898, and May 20, 1899*); Adelphi Theatre, Strand, enlargement and alteration, with extension of Spencer Chadwick's facade, reopened as the Century Theatre in September, 1901; half-timbered house on the site and with some materials of the old "Coach and Horses" tavern, Strand (north side), for "Shorts'," 1889; warehouses and business premises, Juxton-street, Lambeth, and Kender-street, New Cross; St. Giles' Christian Mission Church, Great Wild-street, for 1,000 sittings, with hall and schoolroom beneath, and the adjoining Boys' Home, 1904-7; Adelphi House, on site of Nos. 70-72, Strand, and Nos. 15, 16, 17, Adam-street (August 22, 1903*); residential flats on site of Nos. 79-109 (odd), Park-road, Regent's Park, 1904; rebuilding of Nos. 4-6, Copthall-avenue, E.C.; and for the Hon. Maude Stanley, of Nos. 43-47, Villa-street, and houses in Merrow-street, Walworth, as the Walworth Working Girls' Club; Daly's Theatre, rearrangement and reseating; Norwich Union Life Society's offices, corner (west) of Piccadilly and St. James's-street (1906-8); plans and designs for a proposed concert hall, Oxford-street, Dering and Tenterden streets site; rebuilding of No. 10, St. James's-street for Mr. E. Rumpelmayer; the Emily Harris Home for Jews, Alfred-place, Tottenham Court-road, with restaurant and quarters for forty girls; Finsbury Park Hotel, Green-lanes, Stoke Newington, enlargement; buildings on the sites of Nos. 45-47, Union-street, and No. 34, Red Cross-street, Southwark, for the Hon. Eleanor Hicks-Beach; alterations and improvements, No. 72, Victoria-street, and No. 10, St. James's-street and King-street, S.W.; shops and offices, Berners-street, for Messrs. Chessum & Sons (October 24, 1908*); premises on the site of Nos. 38-40, Queen Anne's-gate, S.W., for the Anglo-American Oil Company, with façade of Pentelic marble, at an estimated cost of about £60,000 (1909); and Alpha Works, Cobourg-road, Camberwell, for Messrs. G. Cooper &

* Illustrated in the *Builder*.

Co. In the provinces—rebuilding of the (old) Theatre Royal, Cambridge (1896); country house, Sutton (September 17, 1898*); proposed new theatre and restaurant on the site of the Norfolk Hotel, Norwich, begun in 1898 for the New London Discount Company, Ltd.; Palace of Varieties, Hastings (April 15, 1899*); Empire Theatre of Varieties and Music Hall, Corporation-road, Middlesbrough (June 10, 1899, interior and exterior, and plan*); stables, Lingfield, for Mr. A. Burr (May 20, 1899*); decorations, Hôtel Métropole, Bexhill; large block of buildings, Argyle and Dunlop streets, Glasgow, for Glasgow Central Stores, Ltd.; and an hotel, Glasgow; rebuilding of the Marina Theatre, Lowestoft, for 1,300 seats (1901); cottages, Horndon-on-the-Hill, for Sir Joseph Dimsdale; Palace Theatre, Wards-end, Halifax, for an audience of 2,500 persons, with a number of shops, and suites of offices above (1902), at a cost of nearly £40,000; Theatre Royal, New-street, Birmingham, five stories high, with a capacity for 2,300 persons, and a row of shops (1903); house at Crowborough, near Tunbridge Wells, on the site of Forest Farm; New Theatre, Holland-road, Hove, Brighton, for 1,400 seats, on the site of the tennis court; Old Bank House, new hall, lounge, etc., museum and library, in the Gun Garden, for the Sussex Archæological Society, the "Village" Inn and in Neville-road, on the Downs (1909), a new hospital, Lewes; and theatre, Park-place, Cardiff, with an auditorium for about 2,000 persons, a stage 70 ft. long, 45 ft. wide, by 45 ft. deep, and twenty dressing-rooms (1904-6).

Mr. Runtz prepared competitive designs for the municipal buildings, Oxford (premiated), and the Wesleyan Church House and Hall, Westminster; a scheme for the widening of London Bridge—"London Bridge as it might be," 1890; and sketches for the exterior of the *Morning Post* offices, Strand, and a scheme for municipal and commercial buildings (Royal Academy, 1901). He read a paper upon "The Planning of Modern Hotels and Restaurants," in March, 1906, to the Cardiff, South Wales, and Monmouthshire Architects' Society, and one upon "Hostelries, Ancient and Modern," to the Auctioneers' Institute of the United Kingdom, in March, 1908; and he presented to the Architectural Association library, in 1911, thirty-two volumes of M. César Daly's "Revue Générale de l'Architecture."

Mr. J. Corbett.

We regret to have to announce the death of Mr. Joseph Corbett, the Borough Engineer of Salford, who died at his residence, Whaley Bridge, on Thursday evening, October 9. Mr Corbett was returning from business at the Salford Town Hall, when he was seized with an illness which ended fatally immediately after his arrival at home. Deceased was appointed Borough Engineer of Salford in the year 1892, prior to which he was a Councillor for the old St. John's Ward of Broughton, Salford, which he resigned to become a candidate for the Borough Engineership. He was in private practice before entering the service of the Corporation, being a member of the firm of Messrs. Corbett, Raby, & Corbett, engineers, etc., of Albert-square, Manchester.

During his term of office with the Salford Corporation he has been engaged upon many important works, the principal of which is the remodelling of the Salford sewage works. Deceased was the first engineer of note, we believe, to appreciate the possibilities of bacterial purification, and, simultaneous with his own private researches, work had been carried out in America by the Massachusetts Board of Health. When the results of this Board were published, confidence in Mr Corbett's proposals was increased, and the Salford Corporation determined to remodel the sewage works upon a bacterial basis. This work has been carried out under the supervision of the late Borough Engineer, who was recognised as an authority upon sewage purification. The Blue Books of the Royal Commission on Sewage Purification contain minutes of the help given by Mr. Corbett in his work at Salford, and the Institution of Civil Engineers invited him to lay before them in the form of a paper the result of his researches. Besides his work in sewage purification for the Borough of Salford, he did much other useful service. Among his work was the designing of model lodging-houses and the making of the plans for the complete installation of the electric tramways.

By his staff, and indeed by all who knew him well, he was greatly esteemed. When he completed twenty-one years' service as Borough Engineer the members of his staff showed their regard for him by presenting him with a silver salver. Apart from his duties as an official, deceased did valuable work. For ten years he was the Honorary Secretary of the Manchester and Salford branch of the Royal Lifeboat Institution and of the Lancashire Lifeboat Union. He was also a member of the Committee which brought about the establishment of a technical school for Manchester.

Mr. Corbett was born at Pendleton, and educated at the Society of Friends' School, Penketh, and the Stand Grammar School. In his younger days he was much interested in working-men's clubs. Until recently he was an active member of the Agecroft Rowing Club, and a history of this club can be obtained on reference to his book, "The River Irwell," which he published in 1907.

Deceased was a widower of at least ten years' standing, and leaves two sons and two daughters. He was interred at All Saints' Church, Cheadle Hulme, on Monday, the 13th inst.

* Illustrated in the *Builder*.

Mr. A. W. Krauss.

Mr. A. W. Krauss, who died as the result of an accident by a motor-car, in Rio de Janeiro, on October 14, aged fifty years, was a member of his father's firm, Messrs. Krauss & Son, the eminent contractors for many works in the United Kingdom. Mr. A. W. Krauss was for several years managing director of the South American Railway Construction Company, who are now laying 1,000 miles of railways in Northern Brazil for the Government of Brazil, and for some years he had been employed in that country, in Uruguay, and the Argentine Republic.

M. Pontzen.

M. Ernest Pontzen, who has just died in Paris, was ex-President of the Society of Civil Engineers, France, Officier of the Légion d'Honneur, and honorary member of the Societies of Civil Engineers of New York and Vienna. M. Pontzen compiled several authoritative works upon railway engineering and construction; he was employed as expert arbitrator in respect of the Lotschberg Tunnel, and executed important works in France, Austria-Hungary, and other countries.

Colonel J. Gore Booth, R.E.

The death is announced of Colonel J. Gore Booth, at Helensburg, aged seventy-three years. Colonel Booth was Consulting Engineer to the Secretary of State for Scotland, and for seven years he was instructor of fortification at Woolwich; he carried out important improvements of Edinburgh Castle, and was formerly Commanding Officer, R.E., at Aldershot and Sandhurst, and in Egypt.

Mr. A. Thomson.

Mr. Andrew Thomson, Braco-street, Fife-Keith, for forty years head architect to the Duke of Richmond and Gordon, died suddenly on Saturday last. Mr. Thomson was a native of Buchan, and began life as a carpenter. Appointed an inspector of works to Messrs. Matthews & Mackenzie, architects, Aberdeen, he subsequently became chief assistant to that firm. He was afterwards appointed head architect to the Duke of Richmond and Gordon.

TO CORRESPONDENTS.

NOTE.—All communications with respect to literary and artistic matters should be addressed to "THE EDITOR" (and not to any person by name); those relating to advertisements and other exclusively business matters should be addressed to THE BUILDER LTD., and *not* to the Editor.

All communications must be authenticated by the name and address of the sender, whether for publication or not. No notice can be taken of anonymous communications.

The responsibility of signed articles, letters, and papers read at meetings rests, of course, with the authors.

We cannot undertake to return rejected communications; and the Editor cannot be responsible for drawings, photographs, manuscripts, or other documents, or for models or samples, sent to or left at this office, unless he has specially asked for them.

All drawings sent to or left at this office for consideration should bear the owner's name and address on either the face or back of the drawing. Delay and inconvenience may result from inattention to this.

Any commission to a contributor to write an article, or to execute or lend a drawing for publication, is given subject to the approval of the article or drawing, when received, by the Editor, who retains the right to reject it if unsatisfactory. The receipt by the author of a proof of an article in type does not necessarily imply its acceptance.

N.B.—Illustrations of the First Premiated Design in any important architectural competition will always be accepted for publication by the Editor, whether they have been formally asked for or not.

LEYS SCHOOLS, CAMBRIDGE.

New buildings are being erected at these schools, including a library and classrooms, etc. The architect for the work was Sir Aston Webb, R.A., and the estimated cost of the new buildings is £12,000.

TRADE CATALOGUES.

In further reference to the comments in our last issue, under the head of "Trade Catalogues," on the book entitled "Notes on Electric Lifts," we omitted to say that Messrs. Smith, Major, & Stevens, Ltd., carry out a large number of first-class passenger-lift contracts. Some of these lifts are at present being supplied to the Houses of Parliament, the Guildhall School of Music, the Ministry of War offices, Rio de Janeiro, and at many other places. Various types of these lifts are illustrated in their book.

The British Ceresit Waterproofing Company, Ltd., have issued a pamphlet which contains particulars and illustrations of buildings which have been treated with "Ceresit." In an introductory note it is stated that "Ceresit is a light-coloured paste of about the consistency of butter," and this fact is followed by a series of paragraphs describing what "Ceresit" can and does do. Among the buildings illustrated in the pamphlet, as having been treated with this material, are the Tate Gallery, a warehouse for Messrs. Togood & Sons at Southampton, and the Kelso Waterworks Concrete Reservoir. Included in the pamphlet are also directions for using "Ceresit." At Ghent Exhibition "Ceresit" was awarded the Grand Prix. Similar awards have been granted to "Ceresit" at Brussels Exhibition in 1910, at Turin in 1911, and at Berlin in 1912.

Mr. A. L. Underwood, of 3 to 5, Queen-street, Cheapside, E.C., forwards us a pamphlet illustrating the Austin improved cube concrete mixer, manufactured by the Municipal Engineering and Contracting Company, Chicago, U.S.A., for which he is the sole British agent. Proof of the excellence of the apparatus is shown by the fact that the Austin mixer was selected for the Panama Canal works. Many illustrations of great interest are given of the mixer in use at various points throughout the course of the famous "ditch." The mixer is made in a series of sizes suitable for all uses.

The first number of a periodical called *Mazda House News* has reached us. This little booklet is published by the British Thomson-Houston Company, Ltd., of 77, Upper Thames-street, E.C., with the idea of keeping contractors and others supplied with news of the latest developments in electric lighting and also particulars of the firm's goods. The book is an interesting one, trade notes being interspersed with short humorous paragraphs, and is attractively arranged. Copies may be obtained from the company at the above address.

PATENTS.

APPLICATIONS PUBLISHED.*

21,465 of 1912.—Karl Alt: Domestic stoves.

22,024 of 1912.—Alfred Ernest Drown: Roofs for buildings.

22,043 of 1912.—Ladislaus Remenyik: Iron railings.

24,105 of 1912.—William Henry Tonks and Walter Sparks: Attaching of door knobs to spindles.

25,942 of 1912.—William Henry Denley and Benjamin Makin: Manufacture of tiles.

25,953 of 1912.—Henry Jewett: Locks and bolts for doors.

26,962 of 1912.—James Stone Dumbell and Albert George Kirby: Locks.

28,581 of 1912.—Milner's Safe Company, Ltd., and Clement Anderson Ely: Mechanism for retarding the lowering of roller blinds or shutters, screens, fireproof curtains, and like appliances.

1,453 of 1913.—Wilfrid Lawson Bullows: Tie for binding together scaffold poles and other temporary structures.

2,095 of 1913.—Ebenezer Wanzer Rider: Brick machines.

6,094 of 1913.—Arthur Bernard Reeves: Rail-knobs and like terminal ornaments or members, and the manufacture of the same.

8,880 of 1913.—Peter Fredrik Thomsen, Johan Anton Luii, and Wilhelmus Johannes Van Dam: Imitation tiles.

11,439 of 1913.—William Henry Tonks and Walter Sparks: Attaching of door-knobs to spindles.

13,221 of 1913.—Ernest Louis Reguin and Arthur James Buckland.

* All these applications are in the stage in which opposition to the grant of Patents upon them can be made.

List of Competitions, Contracts, etc.

For some Contracts still open, but not included in this List, see previous issues. Those with an asterisk (*) are advertised in this number: Competitions, iv.; Contracts, iv. vi. viii. x.; Public Appointments, xx.; Auction Sales, xxvi. Certain conditions beyond those given in the following information are imposed in some cases, such as: the advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in.

***** It must be understood that the following paragraphs are printed as news, and not as advertisements; and that while every endeavour is made to ensure accuracy, we cannot be responsible for errors that *may* occur.**

Competitions.

NOVEMBER 1.—**Hindley.**—SCHOOL.—The U.D.C. of Hindley invite architects and surveyors to submit terms for the preparation of plans, specifications, quantities, etc., for the erection of a public elementary school (approximate accommodation 450) at Platt Bridge. Applications, endorsed "Architect," to be sent to Mr. I. C. Pharaoh, Secretary of Education, Council Offices, Hindley.

NOVEMBER 1.—**Sofia.**—DESIGNS FOR A ROYAL PALACE AND LAW COURTS.—**Particulars from the Commercial Intelligence Branch of the Board of Trade, Basinghall-street, E.C. See page 173, August 9, and page 350, September 27, 1912; also page 708, June 20.**

NOVEMBER 3.—**Hayti.**—DESIGNS FOR A PALACE.—The Haytian Department of Public Works invites competiuve plans for the erection of a palace for the Senate at Port-au-Prince. Plans to the Departement des Travaux Publics Port-au-Prince.

NOVEMBER 29.—**Folkestone.**—BAND PAVILION.—The Folkestone Corporation invite designs for a band pavilion to be erected on the face of the West Cliff. See advertisement in issue for August 15, and "Competition News," August 22.

DECEMBER 31.—**London.**—GOVERNMENT BUILDINGS.—The Commissioners of H.M. Works and Public Buildings invite designs from architects in competition for new offices for the Board of Trade, etc., in Whitehall-gardens, S.W. For particulars, see issues for September 5 and October 17, and also advertisement in issue of September 5.

JANUARY 2, 1914.—**Manchester.**—NEW BUILDINGS AND ALTERATIONS.—The Board of Directors of the Manchester Royal Exchange, Ltd., invite architects to submit designs for additional new buildings and alterations on the existing Exchange buildings. See advertisement in issue for September 5.

JANUARY 2.—**Ottawa.**—DEPARTMENTAL AND COURTS BUILDINGS.—The Department of Public Works, Ottawa, invite architects to submit sketch designs in a preliminary competition for above buildings. Six will be chosen from these for final competition. The five unsuccessful competitors will receive $3,000. The winner will be entrusted with the work. See particulars in issue for September 19 and advertisement in issue of September 12.

* FEBRUARY 1.—**Coventry.**—TECHNICAL INSTITUTE.—The Coventry Corporation invite competitive sketch plans for a Municipal Technical Institute at Pool Meadow.

NO DATE.—**Cookstown.**—TECHNICAL SCHOOL.—The Cookstown Technical Committee invite plans, etc., for the erection of a new technical school. An award of £5 will be given to the successful competitor. Particulars may be obtained by Mr. L. Bradley, Director, Mount Royal, Dungannon.

Contracts.

BUILDING

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in.

OCTOBER 27.—**Dewsbury.**—WALL.—The Dewsbury and Savile C. and F.C. invite tenders for the erection of boundary fence wall to the football field, Savile Town. Specifications, etc., of Messrs. C. H. Marriott, Son, & Shaw, civil engineers, Dewsbury.

OCTOBER 27.—**Evesham.**—COTTAGES.—The Evesham R.D.C. invite tenders for the erection of twenty-six cottages at Offenham, under the Housing of the Working Classes Acts, in accordance with plans, etc., prepared by Mr. Holloway, M.I.M. Cy. E., Surveyor to the Council. Specifications of Mr. E. H. Wadams, Clerk, Union Offices, Evesham. Deposit, £2 2s.

OCTOBER 27.—**Framlingham.**—SCHOOL ADDITIONS.—The East Suffolk County Education Committee invites tenders for the erection of new cloakrooms, offices, etc., at the Brandeston Hall Council School, near Framlingham. Specification, etc., of Mr. J. Webb, the Committee's Surveyor, Education Office, County Hall, Ipswich.

OCTOBER 27.—**Halifax.**—BAKERY.—For various trades and concretor's work required in the erection of a bakery, Green-lane, Stannary, Halifax. Bills of quantities of Messrs. Joseph F. Walsh F.S.I., and Graham Nicholas, F.R.I.B.A., architects, 10, Harrison-road, Halifax.

OCTOBER 27.—**Rawdon.**—ADDITIONS.—Various works required in the extensions of Lakeside Works, Rawdon, for Messrs. W. B. Cartwright, Ltd., comprising office, packing, and other departments. Quantities of Mr. Harold Chippindale, architect, Guiseley.

OCTOBER 28.—**Farnham.**—CONVENIENCES.—The Farnham U.D.C. invite tenders for the erection of conveniences at East-street. Particulars of Mr. R. W. Cass, Surveyor.

OCTOBER 28.—**Holbeck.**—SCHOOL.—For work at St. Richard's School, Holbeck. Quantities of the architects, Messrs. Ed. Simpson & Son, 12, Cunliffe-terrace, Manningham, Bradford.

OCTOBER 28.—**Nethy Bridge.**—ADDITIONS, ETC.—Various trades for additions and alterations to the Nethy Bridge Hotel, Nethy Bridge. Specifications, etc., with the proprietor, Mr. Mackenzie.

OCTOBER 28.—**Praze.**—BUILDINGS.—The Trustees of Praze Wesleyan Church invite tenders for the erection of preachers' parlour, engine-room for lighting plant, and two water-closets. Specification from Messrs. Goodman & Philp, Stewards, Praze, S.O.

OCTOBER 28.—**Ryde.**—ALTERATIONS, ETC.—For additions and alterations to the servants' quarters at Woodlands Vale, near Ryde, for Admiral the Hon. Arthur Somerset Gough-Calthorpe, C.B. Specification of Mr. John I. Barton, architect and surveyor, Ryde.

OCTOBER 29.—**Paisley.**—NURSES' HOME, ETC.—The Renfrew District Lunacy Board invite offers for the various trades in connection with a nurses' home and two villas for patients to be erected at Dykebar Asylum, near Paisley. Specifications, etc., at the office of Mr. T. Graham Abercrombie, architect, County-place, Paisley. Deposit, £1 for each schedule.

OCTOBER 29.—**Spilsby.**—HOUSES.—For one house and two cottages in Spilsby. Specifications, etc., at Mrs. West, High-street, Spilsby.

OCTOBER 29.—**York.**—BUILDING WORK.—The Guardians of York Union invite tenders for certain building work, accessory to a water-softening plant, and including foundations, drainage, store-shed, and water-storage tank, at the Union Workhouse, Huntington-road, York. Specification of Messrs. Shepherd & Watney, engineers, Leeds, or of Mr. George Sykes, Clerk to the Guardians.

OCTOBER 30.—**Bristol.**—HOSPITAL ALTERATIONS.—The Bristol Guardians invite tenders for alterations and additions to St. Peter's Hospital in accordance with drawings and specifications, which are deposited for inspection at the office of Mr. W. S. Skinner, architect, 27, Orchard-street, of whom quantities can be obtained. Deposit, £2 2s.

OCTOBER 30.—**Leigh.**—ALTERATIONS, ETC.—Tenders are invited for the whole of the work required in the alterations and enlargement of the headquarters of the 5th Battalion Manchester Regiment at Leigh. Bills of quantities, etc., of the Surveyor, East Lancashire Association, T.F., Town Hall-chambers, Ashton-under-Lyne. Deposit, £1.

OCTOBER 31.—**Maidenhead.**—LAVATORIES.—The Managers of the Church of England Schools, East-street, Maidenhead, invite tenders for the erection of teachers' lavatories. Specification, etc., of the architect, Mr. E J. Shrewsbury, A.R.I.B.A., Clock Tower-chambers.

OCTOBER 31.—**Surbiton.**—WORKSHOP.—The Surbiton U.D.C. invite tenders for the erection of a workshop, about 25 ft. by 14 ft., at their sewage-disposal works, Lower Marsh-lane, Surbiton. Specification, etc., of the Surveyor, Council Offices, Ewell-road, Surbiton

OCTOBER 31.—**Tredegar.**—HOSPITAL WARDS.—For the erection of new wards, etc., to the Tredegar Cottage Hospital. Specification, etc., of Mr. A. F. Webb, M.S.A., architect and surveyor, Blackwood, Mon. Deposit, £2 2s.

* NOVEMBER 1.—**Rochford.**—EXTENSION OF LAUNDRY AND BOILER-HOUSE.—The Rochford Guardians invite tenders for extending the laundry and boiler-house at the Workhouse.

NOVEMBER 1.—**South Eston.**—SCHOOL BUILDING.—The North Riding of Yorkshire C.C. E.C. invite tenders for the erection of a combined cookery and manual instruction room at South Eston Council School. Specification, etc., on application at the school. Mr. J. C. Wrigley, Education Offices, Northallerton.

NOVEMBER 1.—**Wakefield.**—SHELTERS.—The West Riding Public Health and Housing Committee invite tenders for fifty shelters for persons suffering from tuberculosis. Specifications of the West Riding Architect, County Hall Wakefield.

NOVEMBER 3.—**Durham.**—STORES.—The Annfield Plain Industrial Co-operative Society, Ltd., invite tenders for proposed new branch stores, Esh Winning, Co. Durham. Specifications, etc., at the architect's office, 22, Durham-road, Black Hill, Co. Durham. Mr. Geo. Thos. Wilson, Lic.R.I.B.A., architect and surveyor

NOVEMBER 3.—**Merthyr Tydfil.**—SCHOOL EXTENSIONS.—The Corporation of Merthyr Tydfil invite tenders for extensions to Pantglas Schools, Aberfan. Particulars from the Borough Architect, Town Hall, Merthyr Tydfil.

NOVEMBER 3.—**Runcorn.**—ALTERATIONS, ETC.—The Guardians of Runcorn Union invite tenders for sundry minor alterations and additional fittings at the Workhouse Hospital, Dutton, according to specification prepared by their architects. Specification from Messrs. Wright & Hamlyn, Sankey-street-chambers, Warrington. Deposit, 10s. 6d.

NOVEMBER 10.—**Kirkcudbright.**—HOUSE.—The Kirkcudbright School Board invite tenders for the whole work, or for the different departments, in connection with erection of teachers' house at Townhead School. Specifications of Mr Alex. Cavan, Clerk.

NOVEMBER 11.—**Cambridge.**—HOUSE.—For demolition and rebuilding of No. 18, Peas-hill, Cambridge. Plans and specification on application at the office of the Borough Surveyor, Guildhall, Cambridge.

NOVEMBER 11.—**Twizell.**—HOUSE, ETC.—The Directors of the North-Eastern Railway invite tenders for erecting new house for stationmaster and alterations to existing buildings at Twizell. Specification, etc., of the Stationmaster, Twizell, and further information obtained from Mr. William Bell, the Company's Architect, at York.

* NOVEMBER 18.—**Bow.**—SUBWAYS AND ALTERATIONS.—The Managers of the Poplar and Stepney Sick Asylum District invite tenders for formation of subways and alterations to kitchens, etc., at the Sick Asylum.

NO DATE.—**Chagford.**—For the restoration of Rushford Manor House, for Mr. C G. Hayter-Hames J.P., M.A. Bills of quantities of Mr. E. F. Hooper, archtiect and surveyor, 19A, Bedford-circus, Exeter, and Rock House, Chagford. Deposit, £1 1s.

NO DATE.—**Darlington.**—ALTERATIONS.—For alterations and additions to a malting in Darlington, for Messrs. Simpson & Co. Quantities of Messrs. Evans & Son, architects, Eldon-chambers, Wheeler Gate, Nottingham.

NO DATE.—**Dudley.**—FLOORING.—The Guardians of Dudley Union invite tenders for laying three wards of the Union Infirmary with wood blocks, or, as an alternative, with composition flooring Particulars of Mr. Ernest Allen, Clerk to the Guardians, Union Offices, St James's-road, Dudley.

NO DATE.—**Kendal.**—ALTERATIONS.—For the various works required in making alterations and additions to The Brewery, Highgate, Kendal, for Messrs. Whitwell, Mark, & Co., Ltd. Bills of quantities of Mr. John Hutton, Lic.R.I.B.A., architect, Kendal.

NO DATE.—**Kinghorn.**—EXCAVATING.—For excavator work at Kinghorn Bottle Works, Pettycur, Kinghorn. Particulars from Mr. Wm. Williamson, F.R.I.B.A., architect, Kirkcaldy.

NO DATE.—**Ripon.**—RACECOURSE BUILDINGS.—Tenders for all trades for additions to the Ripon Racecourse buildings, for the Ripon Race Company, Ltd. Applications to Messrs. Bland & Bown, FF.R.I.B.A., architects, Harrogate.

NO DATE.—**Sible Hedingham.**—COTTAGES.—Erection of pair of cottages at Sible Hedingham, Essex. Specification, etc., of Mr. N. J. Aver, surveyor, Uplands, Sible Hedingham. Deposit, 10s

NO DATE.—**Ystalyfera and Maesteg.**—For the following work for Mr. E. Evans Bevan, Neath:—(1) Rebuilding of the Ystalyfera Hotel, Ystalyfera; (2) three lock-up shops adjoining the above; (3) shop and premises at Commercial-street, Maesteg. Specification, etc., of Mr. J. Cook Rees, M.S.A., Parade-chambers, Neath.

ENGINEERING, IRON, AND STEEL.

OCTOBER 29.—**India.**—METALS.—The South Indian Railway Company, Ltd. invite tenders for the supply of:—(1) Bridge work, about 43 tons; (2) bridge work, about 43 tons; (3) metals—brass, copper, iron, lead, tin, and zinc. Specifications, etc., at the Company's Offices, 91, York-street, Westminster, S.W Deposit, 10s. for Nos. 1 and 2; and £1 for No. 3.

OCTOBER 29.—**Newport, Isle of Wight.**—For supplying and fitting up telephones at the Workhouse, Parkhurst. Particulars may be obtained of the Master of the Workhouse.

[Those with an asterisk (*) are advertised in this issue.]

ENGINEERING, etc.—*continued*

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in.

OCTOBER 30.—**Dewsbury.**—BOILER.—The Dewsbury Guardians invite tenders for the supply and fixing of a No. 2.B.5. Ideal boiler at the Union Offices, Wellington-street, Dewsbury. Mr. C. P. Pickersgill, Clerk to the Guardians, Union Offices, Wellington-street, Dewsbury.

NOVEMBER 1.—**Westhoughton.**—STEEL TANK.—The Westhoughton U.D.C. invite tenders for supply of and erection of a steel tank of the capacity of 220,000 gallons. Specifications of Mr. Geo. Hayes, Surveyor to the Council, at the Town Hall, Westhoughton. Deposit, 10s. 6d.

NOVEMBER 3.—**Bristol.**—RIVER WALL.—The Bristol Corporation invite tenders for the construction of a river wall on the bank of the River Avon, opposite the Hotwells Railway Station. Specification of Mr. W. W. Squire, Docks Engineer, Engineer's Office, Cumberland-road, Bristol. Deposit, £2.

NOVEMBER 3.—**Leicester.**—TRAMWAY MATERIAL.—The Leicester T.C. invite tenders for the supply and delivery of 190 tons of steel girder tramway rails and fishplates. Specification, etc., of Mr. E Geo. Mawbey, M.Inst.C.E., Borough Engineer, Leicester. Deposit, £1.

NOVEMBER 10.—**Ipswich.**—PIPES.—The Ipswich Corporation Waterworks Committee invite tenders for about 3,750 6-in. or 7-in. and 550 9-in. by 12-ft. cast-iron pipes. Specification of Mr. C. W. S. Oldham, Engineer, Ipswich Corporation Waterworks, Waterworks Offices, Ipswich. Deposit, £1 1s.

NOVEMBER 22.—**Sunninghill.**—IRON PIPES.—The Windsor R.D.C. invite tenders for about 4¼ miles of cast-iron socketed pipes, 12 in. diameter, for a rising main, and for about 111 lin. yds. of 12-in., 123 lin. yds. of 9-in., and 54 lin. yds. of 6-in. cast-iron socketed pipes, together with some irregularly shaped socketed pipes for gravitation sewers. Bills of quantities, etc., of Mr. Alfd. M. Fowler, M.Inst.C.E., Hendersyde, Ascot. Deposit, £5.

NO DATE. — **Glamorganshire.** — LIGHT RAILWAY.—The Glamorgan C.C. is desirous of negotiating with engineering firms who are prepared to undertake to construct, and to work when constructed, a light railway of the character of a tramway about 5 miles in length, from Ynysforgan to Pontardawe, in continuation of the section of railway about 5 furlongs in length, commencing at the Swansea Borough boundary, already constructed and now worked, as an extension of the borough tramways by the Swansea Improvements and Tramways Company, but which will form a part of the completed undertaking. Plans at the Glamorgan County Hall, Cardiff, and further information of Mr. T. Mansel Franklen, Clerk of the Glamorgan C.C.

NO DATE.—**Leigh.**—TUNNELS.—Driving of two tunnels. Particulars of Manager, West Leigh Colliery Company, Ltd. Leigh Lancashire.

NO DATE.—**Manchester.**—CRANES.—For supplying and erecting two new 5-ton electric derrick cranes, fitted with 75-ft. steel latticed jib, steel body, timber stays, and sleepers. Mr. Robert Carlyle, builder, Elsinore-road, Old Trafford, Manchester.

FURNITURE, PAINTING, MATERIALS, etc.

OCTOBER 28.—**Edinburgh.**—BROOMS, ETC.—The Commissioners of H.M. Works, etc., invite tenders for the supply of brooms and brushes to the Edinburgh district during a period of three years from December 1, 1913. Particulars on application to H.M. Office of Works, 3, Parliament-square, Edinburgh.

OCTOBER 28.—**India.**—STORES.—The Bombay, Baroda, and Central India Railway Company invite tenders for the supply of canvas, bunting, etc.; lamps, lamp fittings, and miscellaneous glass; and turpentine. Specifications of Mr. C. Crommelin, Secretary, Gloucester House, 110, Bishopsgate, London. Deposit, 10s. for first two items, and 5s. each for others (not returnable).

OCTOBER 28.—**Keighley.**—FURNITURE.—For furniture at the Education Offices. Further particulars from the Borough Engineer, Keighley.

OCTOBER 28.—**Platt Bridge.**—PAINTING.—The Ancient Order of Foresters invite tenders for painting outside of eleven houses, No. 95 to 109, Walthew-lane, and 1 to 5, Stapleton-street, Platt Bridge. Specifications of Mr. C. Bennett, 166, Warrington-road, Abram.

NOVEMBER 1.—**Cleethorpes.**—GRANITE.—The Cleethorpes U.D.C. invite tenders for the supply of about 500 tons of granite broken to a 2-in. gauge. Samples to Mr. C. H. Waithman, A.M.Inst.C.E., Surveyor, Council House, Cleethorpes.

NOVEMBER 1.—**Dublin.**—MATERIALS.—The Great Northern Railway Company, Ireland, invite tenders for stores, including ironmongery, electric and gas fittings, glass, ironmongery, timber, varnishes, etc. Patterns at the company's depôt at Dundalk. Forms of tender (1s. for each of the forty-five forms) from Mr. T. Morrison, Secretary, Amiens-street Terminus, Dublin.

NOVEMBER 1.—**Hampton Wick.**—GRANITE.—The U.D.C. of Hampton Wick invites tenders for the supply of about 400 yds. of granite. Mr. Harold Fawssett, Clerk to the Council, Council Offices, High-street, Hampton Wick.

NOVEMBER 1.—**Wycombe.**—MATERIALS.—The Corporation invite tenders for the supply for one year of stoneware pipes and ironmongery. Particulars of the Borough Surveyor, 77, Easton-street, High Wycombe.

NOVEMBER 3.—**Glasgow.**—RAILWAY STORES.—The Caledonian Railway Company invite tenders for the supply of stores for six months from January 1, 1914. Specifications and other information from Mr A. J. Easton, Stores Superintendent, Caledonian Railway, 321, Charles-street, St. Rollox, Glasgow.

NOVEMBER 10.—**Northumberland.**—MATERIALS.—The Bridges and Roads Committee of the Northumberland C.C. invite tenders for supplying, breaking, and carting stone required for the maintenance of the county main roads during the year, from April 1, 1914, to March 31, 1915; also for the supply of tar, pitch and creosote oil, delivered at the various railway stations in the county; and for the supply of roadmen's tools. Specifications, etc., of the County Surveyor, Moothall, Newcastle-on-Tyne.

NOVEMBER 15.—**London.**—STORES.—The Port of London Authority invites tenders for supplies of stores and materials during the twelve months ending December 31, 1914, including ironmongery, etc., bricks, slates, drain pipes, ballast, etc., granite setts, broken granite, etc., Portland cement, timber, paints and varnishes, oils, glass, etc. Specifications, etc., on application to the Stores Superintendent, 106, Fenchurch-street, E.C.

NO DATE.—**London.**—STORES, ETC.—The L.C.C. invite applications from persons and firms, and particularly manufacturers, to have their names placed on the lists of persons and firms from whom the Council from time to time invites tenders for the supply of the various kinds of stores required in connection with the different services of the Council, and for the execution of general maintenance contracts in connection with such services. Form, which contains particulars of the classes of goods required and of maintenance contracts entered into from the Clerk of the L.C.C., County Hall, Spring-gardens, S.W.

NO DATE. — **Swanage.**—ROAD MATERIALS.—The Swanage U.D.C. invite tenders for the supply of road materials (Mendip stone, flint gravel, and local Purbeck stone) for the period ending March, 1914. Specification of Mr W. H. Pearce, A.M.Inst.C.E., Engineer and Surveyor, Swanage.

ROADS, SANITARY AND WATER WORKS.

OCTOBER 27.—**Kempston.**—STREET WORKS.—The Kempston U.D.C. invite tenders for materials and labour in carrying out private street works at Howard and Stanley streets, Kempston. Specifications, etc., at the office of the Surveyor, Mr E. H. C. Inskip, Bedford-road, Kempston.

OCTOBER 27. — **Nuneaton.** — SEWERS. — The Nuneaton Corporation invite tenders for labour in excavating for and laying (but not jointing) about 1,300 yds. of 6-in. and 7-in. cast-iron pipes in Avenue-road and Bridge-street, Coton. Specification of Mr. F. C. Cook, Borough Engineer.

OCTOBER 27.—**Romford.**—STREET WORKS.—The Romford U.D.C. invite tenders for works of street improvement in Kingston-road. Specification, etc., of Mr. Herbert T. Ridge, at the Council Offices, Market-place, Romford. Deposit, £2 2s.

OCTOBER 27.—**Stockport.**—STREET WORKS.—The Highways and Sewers Committee invite tenders for sewering and making-up portions of Calcutta-road and Madras-road. Specifications, etc., of Mr. John Atkinson, A.M.Inst.C.E., Borough Surveyor, Town Hall, Stockport.

OCTOBER 28.—**Bury.**—SEWERAGE WORKS.—The Corporation of Bury invite tenders for the construction of precipitation tanks and channels, with all contingent works, situate at Lumn Mills, Bevis Green, Walmersley, Bury. Specification, etc., at the office of the Borough Engineer, Bank-street, Bury. Deposit, £1.

OCTOBER 28. — **Stevenston.** — PAVING. — The Northern District Committee of Ayrshire C.C. invite tenders for causewaying, etc., purposed in New-street, Stevenston. Plans at the office of Mr. John Armour, Road Surveyor, Irvine, or the Parish Council Offices, New-street, Stevenston. Deposit, £2.

* OCTOBER 28.—**Willesden.**—SEWERS, ETC.—The Willesden D.C. invite tenders for construction and maintenance for twelve months of about 321 lineal ft. of brick sewer and about 40 lineal ft. of stoneware pipe sewer, with manholes, ventilators, etc.

OCTOBER 29.—**Wembley.**—DRAINAGE, ETC.—The Wembley U.D.C. invite tenders for draining, sub-draining, laying-out tennis courts, cricket and football pitches, bowling green, footpaths, and incidental work. Plans at the office of the Engineer and Surveyor to the Council, Mr. Cecil R. W. Chapman, Public Offices, High-road, Wembley. Specifications of Mr. Fredk. W. Rodd, Clerk to the Council.

OCTOBER 31.—**Doncaster.**—SEWERS.—The R.D.C. of Doncaster invite tenders for the construction of manholes on the sewer at Barnby Don. Particulars from the Surveyor, Mr. W. R. Crabtree, Union Offices, High-street, Doncaster.

OCTOBER 31.—**Otley.**—ASPHALTING.—The West Riding C.C. Education Department invite tenders for asphalting the playgrounds. Specifications of Mr. T. W. Padgett, Divisional Clerk, Otley.

OCTOBER 31.—**Surbiton.**—SEWERS.—The Surbiton U.D.C. invite tenders for the construction of about 167 yds. of 9-in. stoneware pipe surface-water drain, with brickwork manholes, etc., in private ground at Regent Farm, Surbiton-hill, Surbiton. Specification of the Surveyor, Council Offices, Ewell-road, Surbiton.

NOVEMBER 1. — **Chesterfield.** — PIPE-LAYING.—The Chesterfield R.D.C. invite tenders for the laying and jointing of cast-iron mains at Alton and Littlemoor. Specification, etc., of the Engineer, Mr. Gilbert Frith, Waterworks Department, R.D.C. Offices, Chesterfield.

NOVEMBER 1. — **Chesterfield.**—WATERWORKS.—The Chesterfield R.D.C. invite tenders for the construction of a stone and concrete reservoir of 25,000 gallons capacity. Specifications, etc., of the Engineer, Mr. Gilbert Frith, Waterworks Department, R.D.C. Offices, Chesterfield.

NOVEMBER 3. — **Dunbar.** — PATHS, ETC.—The Secretary of State for War invites tenders for the following work:—The regravelling of existing parade, forming new parade and paths, and forming steps at Castle Park Barracks, Dunbar, in the Scottish Command. Specification at the Office of the Director of Barrack Construction, 80, Pall-mall, S.W., or at the Barrack Construction Office, Castle Park Barracks, Dunbar. Deposit, 10s.

NOVEMBER 3.—**Keighley.**—STREET WORKS.—The Keighley R.D.C. invite tenders for making-up Unity-street, Morton Banks, near Keighley. Quantities of Mr. Thomas Burton, Surveyor, 80, Cark-road, Keighley.

NOVEMBER 3.—**Runcorn.**—SEWERAGE WORKS.—The R.D.C. of Runcorn invite tenders for sewerage works in the parish of Walton Interior, within their district. Specification at the office of the Engineers, Messrs. Wright & Hamlyn, Sankey-street-chambers, Warrington. Deposit, £1 1s.

NOVEMBER 4.—**East Stow.**—WATERWORKS.—The East Stow R.D.C. invite tenders for constructing a bored well, pumping-station, covered tanks, and water mains, etc., at Combs, near Stowmarket, Suffolk, in accordance with the specification prepared by Messrs. John Taylor & Sons, civil engineers. Specification, etc., from the engineers, Caxton House, Westminster. Deposit, £5.

NOVEMBER 5.—**London.**—PAVING, ETC.—The Metropolitan Asylums Board invite separate tenders for (1) wrought-iron gates and granite sett paving at the Western Fever Hospital, Seagrave-road, Fulham, S.W.; and (2) repairs to roads and paths at the Park Hospital for Children, Hither Green, S.E. Specifications, etc., at the Office of the Board, Embankment, E.C. Deposit, £1.

NOVEMBER 6.—**York.**—STREET WORKS.—The Corporation of York invite tenders for the making-up of all private streets required to be made up within the City of York during a period of twelve months. Specification on application at the City Engineer's Office, Guildhall, York. Deposit, £1 1s.

NOVEMBER 7.—**Ivybridge.**—RESERVOIR, ETC.—The Ivybridge U.D.C. invite tenders for the construction of a reservoir on Harford Moor, and the providing and laying of about 2 miles of cast-iron pipes. Specifications, etc., of the Engineer, Mr. Harry Francis, M.Inst.C.E., 12, Lockyer-street, Plymouth. Deposit, £5 for first contract, and £1 for second.

NOVEMBER 10.—**Ipswich.**—WATERWORKS.—The Ipswich Corporation invite tenders for the cartage of pipes, trenchwork, laying and jointing for water main for the Ipswich waterworks. Specification, etc., of Mr. C. W. S. Oldham, Engineer, Ipswich Corporation Waterworks, Waterworks Offices, Ipswich. Deposit, £1 1s.

NOVEMBER 15.—**Sutton Coldfield.**—REFUSE DESTRUCTOR.—The Corporation invite designs and tenders for erection of refuse destructor. All information of Mr. W. A. H. Clarry, Borough Engineer and Surveyor, the Council House, Sutton Coldfield. Deposit, £2 2s.

NOVEMBER 22. — **Sunninghill.** — SEWERAGE WORKS.—The Windsor R.D.C. invite tenders for about 34 miles of glazed stoneware main sewers and the fixing thereof. Specification, etc., of Mr. A. M. Fowler, M.Inst.C.E., Hendersyde, Ascot. Deposit, £10.

NO DATE.—**Cardiff.**—ROADS.—For the laying of between 1 and 2 miles of kerb and channelling, the formation of pathways, covering same with part asphalt and part gravel, and the planting of trees. Particulars of Mr. W. Beddoe Rees, architect, 3, Dumfries-place, Cardiff.

NO DATE. — **Kingston.** — DRAINAGE. — The Kingston Burial Board invite tenders for certain drainage works to be carried out at Kingston Cemetery. Particulars of Mr. Edward Carter, A.R.I.B.A., Architect and Surveyor, 86, Eden-street, Kingston-on-Thames.

NO DATE. — **Llanishen.**—PATHS.—For making paths and doing small repairs to Chapel and Hebrew Cemetery, Llanishen. Particulars of Messrs. Willmott & Smith, architects, 29, St. Mary-street, Cardiff.

Public Appointment.

* OCTOBER 31.—CHIEF TOWN PLANNING ASSISTANT.—The Birmingham Corporation invite applications for the above post. Salary, £300 per annum.

Auction Sales.

* OCTOBER 28.—**Tottenham.**—Messrs. J. T. Skelding & Co. will sell by auction, on the premises, a quantity of plant, machinery, tools, timber, etc.

* OCTOBER 29.—**Aldershot.**—Mr. H. W. Smith will sell by auction, at 133, Victoria-road, Aldershot, a builder's and general ironmonger's stock.

* NOVEMBER 10.—**Woodford.**—Messrs. Kemsley will sell by auction, at the Mart, a freehold building estate.

* NOVEMBER 11.—**Hendon.**—Messrs. Rutley, Son, & Vine will sell by auction, at the Mart, freehold property known as "The Chestnuts."

* NOVEMBER 12. — **Leytonstone.** — Messrs. Fuller, Horsey, Sons, & Cassell will sell by auction, on the premises, the plant, stock, and materials of a builder.

* DECEMBER 1.—**London.**—Messrs. Jones, Lang, & Co. will let by auction several building sites.

* MARCH.—**Mill Hill.**—Messrs. Maple & Co. will sell by auction, at the Mart, a freehold residential or building estate.

[Those with an asterisk (*) are advertised in this issue.]

A Smoking-room on a large Liner : : laid with : : NORTH BRITISH Rubber Tiling.

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For Durability there is no Floor Covering to equal it, for proof of which we would mention that there are several instances where our Rubber Tiling has been laid for many years and is still in use, yet shows no sign of wear or deterioration. Our illustration gives some idea of its neat and attractive appearance, but black and white cannot do it justice, therefore let us send you coloured illustrations showing how different schemes of decoration can be matched. *Estimates Free.*

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If you wish to obtain the effect of Rubber Tiling at a quarter of the cost you must specify "Rublino" Tiles. They are noiseless, sanitary, and never ——require to be renewed.——

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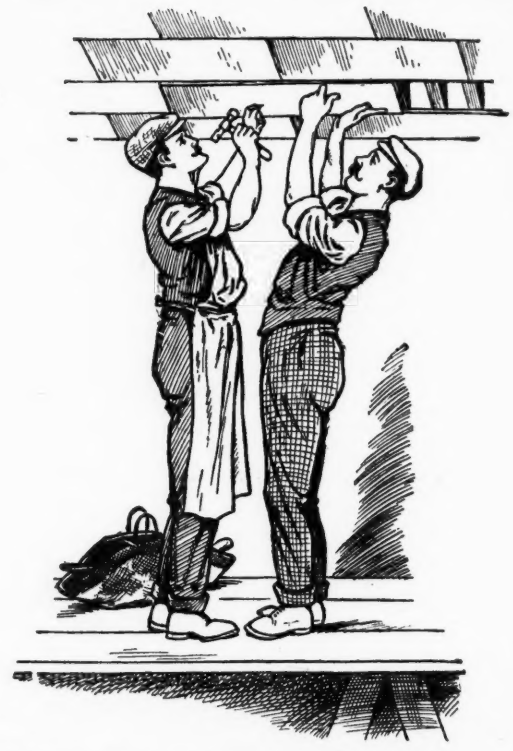

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1 ton **PETROL VEHICLES**
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5 ton STEAM VEHICLES
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3 ton TRAILER ATTACHED
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Modern Glass Houses

Replete with the Latest Improvements in Construction, Ventilation, Heating, etc.

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PRICES CURRENT OF MATERIALS.

*** Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

BRICKS, &c.

Per 1000 Alongside, in River.	£	s.	d.
Best Stocks	1	16	0
Picked Stocks for Facings	2	10	0

Per 1000, Delivered at Railway Depôt.

	£	s.	d.		£	s.	d.
Flettons	1	14	0	Best Blue Pressed Staffordshire	3	15	0
Best Fareham Red	3	12	0	Do. Bullnose	4	0	0
Best Red Pressed Ruabon Facing	5	0	0	Best Stourbridge Fire Bricks	4	0	0
GLAZED BRICKS—							
Best White Ivory, and Salt Glzd Str'tch'rs	12	7	6	Double Headers	14	17	6
Headers	11	17	6	One Side and two Ends	18	17	6
Quoins, Bullnose and 4½ in. Flats	15	17	6	Two Sides and one End	19	17	6
D'bleStr'tch'rs	17	17	6	Splays and Squints	17	7	6

Second Quality £1 10s. per 1000 less than best.

	s.	d.	
Thames and Pit Sand	7	0	per yard, delivered.
Thames Ballast	5	9	„ „
Best Portland Cement	36	0	per ton, „
Best Ground Blue Lias Lime	19	0	„ „

NOTE—The cement or lime is exclusive of the ordinary charge for sacks.

Grey Stone Lime ..... 14s. 0d. per yard delivered.
Stourbridge Fireclay in sacks 27s. 0d. per ton at rly. dpt.

STONE.

Per Ft. Cube.

	s.	d.
BATH STONE—Delivered on road waggons, Paddington Depôt	1	7½
Do. do. Delivered on road waggons, Nine Elms Depôt	1	9½
PORTLAND STONE (20 ft. average)—		
Brown Whitbed, Delivered on road waggons, Paddington Depôt, Nine Elms Depôt, or Pimlico Wharf	2	4½
White Basebed, Delivered on road waggons, Paddington Depôt, Nine Elms Depôt, or Pimlico Wharf	2	6½

Per Ft. Cube, delivered at Railway Depôt.

	s.	d.		s.	d.
Ancaster in blocks	1	10	Closeburn Red Freestone	2	0
Beer in blocks	1	10	Red Mansfield Freestone	2	4
Greenshill in blocks	2	4	Talacre & Gwespyr Stone	2	4
Darley Dale in blocks	2	3			
Red Corsehill in blocks					

YORK STONE—*Robin Hood Quality.*

Per Ft. Cube, Delivered at Railway Depôt.	s.	d.
Scappled random blocks	2	10

Per Ft. Super., Delivered at Railway Depôt.

6 in. sawn two sides landings to sizes (under 40 ft. super.)	2	8
6 in. rubbed two sides ditto, ditto	2	6
3 in. sawn two sides slabs (random sizes)	0	11½
2 in. to 2½ in. sawn one side slabs (random sizes)	0	7
1½ in. to 2 in. ditto, ditto	0	6

HARD YORK—

Per Ft. Cube, Delivered at Railway Depôt.

Scappled random blocks	3	0

Per Ft. Super., Delivered at Railway Depôt.

6 in. sawn two sides landing to sizes (under 40 ft. super.)	2	8
6 in. rubbed two sides ditto	3	0
3 in. sawn two sides slabs (random sizes)	1	2
2 in. self-faced random flags	0	5

SLATES.

Per 1000 of 1200 at Railway Depôt.

In. In.	£	s.	d.	In. In.	£	s.	d.
20 × 10 best blue Bangor	13	2	6	20 × 10 best Eureka unfading green	15	17	6
20 × 12 ditto	13	17	6	20 × 12 ditto	18	7	6
20 × 10 1st q'lity ditto	13	0	0	18 × 10 ditto	13	5	0
20 × 12 ditto	13	15	0	16 × 8 ditto	10	5	0
16 × 8 ditto	7	5	0	20 × 10 permanent green	11	12	6
22 × 10 best blue Portmadoc	12	12	6	18 × 10 ditto	9	12	6
16 × 8 ditto	6	12	6	16 × 8 ditto	6	12	6

TILES.

At Railway Depôt.

	s.	d.		s.	d.
Best plain red roofing (per 1000)	42	0	Best "Hartshill" brand, plain sand-faced (per 1000)	45	0
Hip and Valley (per doz.)	3	7	Do. pressed (per 1000)	42	6
Best Broseley (per 1000)	50	0	Do. Ornamental (per 1000)	47	6
Do. Ornamental (per 1000)	52	6	Hip (per doz.)	4	0
Hip and Valley (per doz.)	4	0	Valley (per doz.)	3	6
Best Ruabon red, brown, or brindle (Edw'ds) (per 1000)	57	6	Staffords. (Hanley) Reds or Brindled (per 1000)	42	6
Do. Ornamental (per 1000)	60	0	Hand-made sand-faced (per 1000)	45	0
Hip (per doz.)	4	0	Hip (per doz.)	4	0
Valley (per doz.)	3	0	Valley (per doz)	3	6

WOOD.

BUILDING WOOD.	At per standard. £	s.	d.		£	s.	d.
Deals: best 3 in. by 11 in. and 4 in. by 9 in. and 11 in.	15	0	0	..	16	10	0
Deals: best 3 in. by 9 in.	15	0	0	..	16	0	0
Battens: best 2½ in. by 7 in. and 8 in., and 3 in. by 7 in. and 8 in.	12	10	0	..	13	10	0
Battens: best 2½ by 6 and 3 by 6	0	10	0		less than 7 in. and 8 in.		
Deals: seconds	1	0	0		less than best		
Battens: seconds	0	10	0		„	„	
2 in. by 4 in. and 2 in. by 6 in.	11	10	0	..	12	10	0
2 in. by 4½ in. and 2 in. by 5 in.	10	10	0	..	11	10	0
Foreign Sawn Boards—							
1 in. and 1½ in. by 7 in.	0	10	0		more than battens.		
¾ in.	1	0	0		„		
Fir timber: best middling Danzig or Memel (average specification)	At per load of 50 ft. 5	0	0	..	6	5	0
Seconds	4	10	0	..	5	0	0
Small timber (8 in. to 10 in.)	3	17	6	..	4	0	0
Small timber (6 in. to 8 in.)	3	5	0	..	3	10	0
Swedish balks	2	12	6	..	3	0	0
Pitch-pine timber (30 ft. average)	6	0	0	..	7	0	0

JOINERS' WOOD.	At per standard. £	s.	d.		£	s.	d.
White Sea: first yellow deals, 3 in. by 11 in.	26	0	0	..	27	0	0
3 in. by 9 in.	24	0	0	..	25	0	0
Battens, 2½ in. and 3 in. by 7 in.	18	10	0	..	19	10	0
Second yellow deals, 3 in. by 11 in.	21	10	0	..	22	10	0
„ „ 3 in. by 9 in.	20	0	0	..	21	0	0
Battens, 2½ in. and 3 in. by 7 in.	15	0	0	..	16	0	0
Third yellow deals, 3 in. by 11 in. and 9 in.	16	0	0	..	17	0	0
Battens, 2½ in. and 3 in. by 7 in.	14	0	0	..	15	0	0
Petersburg: first yellow deals, 3 in. by 11 in.	23	0	0	..	24	0	0
Do. 3 in. by 9 in.	20	0	0	..	21	0	0
Battens	15	0	0	..	16	0	0
Second yellow deals, 3 in. by 11 in.	17	10	0	..	18	10	0
Do. 3 in. by 9 in.	16	0	0	..	17	0	0
Battens	12	10	0	..	13	10	0
Third yellow deals, 3 in. by 11 in.	14	0	0	..	15	0	0
Do. 3 in. by 9 in.	13	10	0	..	14	10	0
Battens	11	10	0	..	12	10	0
White Sea and Petersburg—							
First white deals, 3 in. by 11 in.	16	10	0	..	17	10	0
First white deals, 3 in. by 9 in.	14	10	0	..	15	10	0
Battens	13	0	0	..	13	10	0
Second white deals, 3 in. by 11 in.	14	10	0	..	15	10	0
Second white deals, 3 in. by 9 in.	13	0	0	..	14	0	0
Battens	12	0	0	..	12	10	0
Pitch-pine: deals	25	0	0	..	26	10	0
Under 2 in. thick extra	0	10	0	..	1	0	0
Columbian or Oregon Pine, best quality	23	10	0	..	26	0	0
Yellow Pine—First, regular sizes	50	0	0		upwards.		
Oddments	35	0	0		„		
Seconds, regular sizes	36	0	0		„		
Oddments	31	0	0		„		
Kauri Pine—Planks per ft. cube	0	5	6	..	0	6	6
Danzig and Stettin Oak Logs—Large, per ft. cube	0	3	0	..	0	3	9
Small „ „	0	2	6	..	0	3	0
Wainscot Oak Logs, per ft. cub	0	7	6	..	0	9	0
Dry Wainscot Oak, per ft. super. as inch	0	0	10	..	0	1	2
¾ in. do. do.	0	0	9	..	0	1	0
Dry Mahogany — Honduras, Tabasco, per ft. super. as inch	0	0	10	..	0	1	3
Selected, Figury, per ft. super. as inch	0	1	6	..	0	2	6
Cuba Mahogany	0	1	4	..	0	2	6
Dry Walnut, American, per ft. super. as inch	0	0	10	..	0	1	2
French, "Italian," Walnut	0	0	10	..	0	1	4
Teak, per load (Rangoon or Moulmein)	20	10	0	..	26	0	0
Do., do. (Java)	19	0	0	..	22	10	0
American Whitewood planks, per ft. cube	0	5	6	..	0	6	6

Prepared Flooring, etc.—	Per square. £	s.	d.		£	s.	d.
1 in. by 7 in. yellow, planed and shot	0	14	6	..	0	18	0
1 in. by 7 in. yellow, planed and matched	0	14	9	..	0	18	0
1¼ in. by 7 in. yellow, planed and matched	0	17	6	..	1	3	0
1 in. by 7 in. white, planed and shot	0	14	0	..	0	16	0
1 in. by 7 in. white, planed and matched	0	14	3	..	0	16	6
1¼ in. by 7 in. white, planed and matched	0	16	6	..	0	8	6
¾ in. by 7 in. yellow, matched and beaded or V-jointed boards	0	12	6	..	0	15	0
1 in. by 7 in. „ „	0	15	0	..	0	18	6
¾ in. by 7 in. white „ „	0	12	0	..	0	14	0
1 in. by 7 in. „ „	0	14	6	..	0	16	6

6 in. at 6d. to 9d. per square less than 7 in.

JOISTS, GIRDERS, &c.

	In London or delivered Railway Vans, per ton. £	s.	d.		£	s.	d.
Rolled Steel Joists, ordinary sections	9	0	0	..	10	0	0
Compound Girders, ordinary sections	11	0	0	..	12	0	0
Steel Compound Stanchions	12	0	0	..	13	0	0

JOISTS, GIRDERS, &c. (*continued*).

	In London or delivered Railway Vans, per ton. £	s.	d.		£	s.	d.
Angles, Tees, and Channels, ordinary sections	11	0	0	..	12	0	0
Flitch Plates	11	0	0	..	12	0	0
Cast Iron Columns & Stanchions, including ordinary patterns	8	10	0	..	9	0	0

METALS.

IRON—	Per ton, in London. £	s.	d.		£	s.	d.
Common Bars	9	0	0	..	9	10	0
Staffordshire Crown Bars, good merchant quality	9	5	0	..	9	15	0
Staffordshire "Marked Bars"	11	0	0	..	—		
Mild Steel Bars	9	5	0	..	9	15	0
Hoop Iron, basis price	10	0	0	..	—		
„ „ Galvanised	17	10	0	..	—		
(* And upwards, according to size and gauge.)							
Sheet Iron Black—							
Ordinary sizes to 20 g.	10	5	0	..	—		
„ „ 24 g.	11	5	0	..	—		
„ „ 26 g.	12	15	0	..	—		
Sheet Iron, Galvanised, flat, ordinary quality—							
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	15	10	0	..	—		
Ordinary sizes to 22 g. and 24 g.	16	0	0	..	—		
Ordinary sizes to 26 g.	17	0	0	..	—		
Sheet Iron, Galvanised, flat, best quality—							
Ordinary sizes to 20 g.	18	10	0	..	—		
„ „ 22 g. and 24 g.	19	0	0	..	—		
Ordinary sizes to 26 g.	20	10	0	..	—		
Galvanised Corrugated Sheets—							
Ordinary sizes, 6 ft. to 8 ft. 20 g.	15	0	0	..	—		
Ordinary sizes, 22 g. and 24 g.	15	5	0	..	—		
Ordinary sizes, 26 g.	16	15	0	..	—		
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	12	10	0	..	—		
Best Soft Steel Sheets, 22 g. & 24 g.	13	10	0	..	—		
Best Soft Steel Sheets, 26 g.	15	10	0	..	—		
Cut Nails, 3 in. to 6 in.	11	0	0	..	11	10	0
(Under 3 in., usual trade extras.)							

LEAD, &c.

	Delivered in London. £	s.	d.		£	s.	d.
LEAD—Sheet, English, 4 lb. and up	24	5	0	..	—		
Pipe in coils	24	15	0	..	—		
Soil pipe	27	15	0	..	—		
Compo pipe	27	15	0	..	—		
ZINC—Sheet—	In casks of 10 cwt.						
Vielle Montagne	28	5	0	..	—		
Silesian	28	10	0	..	—		
Zinc, in bundles, 1s. per cwt. extra.							
COPPER—							
Strong Sheet per lb.	0	1	1	..	—		
Thin „ „	0	1	2	..	—		
Copper nails „	0	1	0	..	—		
Copper wire „	0	1	0	..	—		
BRASS—							
Strong Sheet „	0	1	0	..	—		
Thin „	0	1	1	..	—		
TIN—English Ingots „	0	1	11	..	—		
SOLDER—Plumbers' „	0	0	10	..	—		
Tinmen's „	0	1	1	..	—		
Blowpipe „	0	1	3	..	—		

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.*

Per Ft. Delivered.

15 oz. thirds	2½d.	26 oz. fourths	3¾d.
„ fourths	2d.	32 oz. thirds	5½d.
21 oz. thirds	3½d.	„ fourths	4½d.
„ fourths	3d.	Fluted Sheet, 15 oz.	3d.
26 oz. thirds	4½d.	„ 21 oz.	4d.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.*

Per Ft. Delivered.

⅛ Rolled plate	2½d.	Figured Rolled, Oxford Rolled, Oceanic, Arctic, Muffled, and Rolled Cathedral, white	3½d.
1/16 Rough rolled and rough cast plate	2¾d.	Ditto, tinted	5d.
¼ Rough rolled and rough cast plate	3d.		

* Not less than two crates.

OILS, &c.		£	s.	d.
Raw Linseed Oil in pipes	per gallon	0	2	0
„ „ „ in barrels	„	0	2	1
„ „ „ in drums	„	0	2	3
Boiled „ „ in barrels	„	0	2	3
„ „ „ in drums	„	0	2	6
Turpentine in barrels	„	0	2	6
„ in drums	„	0	2	8
Genuine Ground English White Lead, (In not less than 5 cwt. casks.)	per ton	30	15	0
Red Lead, Dry	per ton	28	0	0
Best Linseed Oil Putty	per cwt.	0	9	0
Stockholm Tar	per barrel	1	12	0

VARNISHES, &c.

	Per gallon. £	s.	d.
Fine Pale Oak Varnish	0	8	0
Pale Copal Oak	0	10	6
Superfine Pale Elastic Oak	0	12	6
Fine Extra Hard Church Oak	0	10	0
Superfine Hard-drying Oak, for seats of Churches	0	14	6
Fine Elastic Carriage	0	12	0
Superfine Pale Elastic Carriage	0	16	0
Fine Pale Maple	0	10	0
Finest Pale Durable Copal	0	18	6
Extra Pale French Oil	1	1	0
Eggshell Flating Varnish	0	18	0

VARNISHES, &c. *(Continued)*.	Per gallon. £ s. d.
White Pale Enamel	1 4 0
Extra Pale Paper	0 12 0
Best Japan Gold Size	0 10 0
Best Black Japan	0 16 0
Oak and Mahogany Stain	0 9 0
Brunswick Black	0 8 0
Berlin Black	0 16 0
Knotting	0 10 6
French and Brush Polish	0 10 0

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach us *not later than* 6 *p.m. on Wednesday*. [N.B.—We cannot publish Tenders unless authenticated either by the architect or the building owner; and we cannot publish announcements of Tenders accepted unless the amount of the Tender is stated, nor any list in which the lowest Tender is under 100*l*. unless in some exceptional cases and for special reasons.]

***Denotes *accepted*. †Denotes *provisionally accepted*.**

CARSHALTON.—For making-up of Woodstock and Dalmeny roads, for the Carshalton Urban District Council:—

Streeter Bros.* £292 9s. and £577 12s. 1d. respectively.

CROYDON.—For seven houses at Ashburton-road, Croydon. Mr. Frank Windsor, architect, Lic.R.I.B.A., M.S.A., 1, High-street, Croydon:—

W. D. Barker	£969	Owen & Co.	£835
Pearson & Co.	895	Johnson & Co.	735

[All of Croydon, and estimate for one house.]

ENFIELD.—For construction of water-tower, for the Metropolitan Water Board:—

C. Wall, Ltd.	£1,861 16 11	W. Moss & Sons, Ltd.	£1,698 17 7
W. H. Lorden & Son, Ltd.	1,853 0 0	A. Fairhead & Son*	1,624 13 6
A. N. Coles	1,740 8 10		

ENFIELD.—For supply and erection of steel tank, for the Metropolitan Water Board:—

T. Piggott & Co., Ltd.	£515 0	C.&W.Walker,Ltd.	£496 0
J. Thompson	498 10	F. Blakeley, Sons, & Co., Ltd.*	350 0

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HAMPSHIRE.—For the superstructure of the new asylum at Park Prewett, near Basingstoke, for the Hampshire Joint Asylums Visiting Committee. Messrs. George T. Hine & H. Carter Pegg, architects, Westminster. Quantities by Mr. L. A. Francis, 8, John-street, Adelphi, W.C.:—

Pethick Bros., Ltd.	£344,444	W. Pattinson & Sons, Ltd.	£286,443
Leslie & Co., Ltd.	317,719	Mussellwhite & Son	282,000
Perry & Co. (Bow), Ltd.	309,000	H. Willcock & Co.	281,190
Holloway Bros.	299,780	G. E. Wallis & Sons, Ltd.	273,940
Allen & Co.	297,000	W. Moss & Sons, Ltd.	271,944
Thomas & Edge	295,857	W. E. Blake, Ltd.	267,641
J. Bowen & Sons, Ltd.	290,400	S. Roberts, Ltd.	265,512
W. H. Lorden & Sons, Ltd.	290,265	T. Rowbotham, Birmingham*	258,777
H. Lovatt, Ltd.	289,950		
Foster & Dicksee, Ltd.	289,000		

LANGFORD.—For erection of twenty cottages, for the Rural District Council, Biggleswade. Messrs. Homer & Lucas, architects, 62, Oxford-street, W. Quantities by Mr. G. Silvester, F.S.I., 7, Adam-street, Strand, W.C.:—

—	No. 1, 12 Cottages.		No. 2, 8 Cottages.		—	
	£	s. d.	£	s. d.	£	s. d.
S. Redhouse & Son	2,942	13 10	1,814	0 1	4,756	13 11
H. Pickrell	2,892	0 0	1,751	0 0	4,643	0 0
O. P. Drever & Son, Ltd.	2,762	0 0	1,695	0 0	4,457	0 0
M. J. Allen	2,706	8 6	1,632	16 10	4,339	5 4
J. Ray	2,627	19 11	1,595	11 3	4,223	11 2
F. J. Bailey & Co., Ltd.	2,514	0 0	1,536	0 0	4,050	0 0
C. Wright, Langford*	2,494	0 0	1,498	0 0	3,992	0 0
W. H. Izzard	2,317	0 0	1,611	4 6	3,928	4 6

LONDON.—For the construction of underground conveniences in Stepney Green, for Stepney Borough Council:—

J. Slade	£2,510	A. E. Symes	£1,947
Johnson Bros.	2,282	G. Barker, 48, New-road, E.*	1,935
C. P. Roberts & Co., Ltd.	2,035	F. & G. Foster	1,922

LONDON.—For the construction of an underground convenience in Commercial-road, E., for Stepney Borough Council:—

J. Slade	£1,340
Johnson Bros.	1,304
C. P. Roberts & Co., Ltd.	1,194
F. & G. Foster, Norwood Junction, S.E.*	995

LONDON.—For the installation of sliding poles and the execution of minor works at the Lewisham, North Kensington, Stoke Newington, and Streatham fire-stations, for the London County Council:—

Lole & Co.	£2,060	Kerridge & Shaw	£1,643
F. & T. Thorne	1,930	A. Roberts & Co., Ltd., 74, Earl's Court-road, W.*	1,500
J. & C. Bowyer, Ltd.	1,895		
Triggs & Co.	1,740		
W. Downs	1,693		

LONDON.—For erection of gymnasium at Bishopsgate Fire-Station, for London County Council:—

J. & C. Bowyer, Ltd.	£1,596	J. Marsland & Son	£1,356
F. & T Thorne	1,559	H. L. Holloway	1,313
A. Roberts & Co., Ltd.	1,520	Triggs & Co., The Chase, Clapham*	1,294
J. Grover & Son	1,443	J. C. Mather	1,192
G. Godson & Sons	1,391		

LONDON.—For rebuilding Clerkenwell Fire Station, for London County Council:—

Holliday & Greenwood, Ltd.	£19,477	J. & C. Bowyer, Ltd.	£16,340
A. Monk	18,135	J. Grover & Son	16,326
Ashby & Horner	17,098	W. Downs	16,177
G. Godson & Sons	16,896	Kerridge & Shaw, Cambridge*	15,242

MILNTHORPE.—For sewage disposal works, for the South Westmorland Rural District Council:—

Scott	£712 4 0	Hodgson & Nelson, Milnthorpe*	£685 6 1
Keith	687 7 5		

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NEWCASTLE-UPON-TYNE.—For erection of nurses' home, two villa blocks, and isolation hospital at the City Asylum. Mr. John W. Dyson, architect, 22, Blackett-street. Mr. S. Addison Smith, quantity surveyor, Emerson-buildings, Newcastle:—

Kirk & Brown	£22,249 18 0	S. F. Davidson	£20,928 15 6
J. C. Ferguson	21,980 0 0	T. Lumsden	20,890 9 0
Middlemiss Bros.	21,813 0 0	G. Douglass	20,739 13 4
W. T. Weir	21,500 0 0	G. H. Mauchlen	20,650 0 0
J. & W. Lowry	20,989 0 0	A. Pringle*	20,325 0 0

[All of Newcastle.]

NORTH FRODINGHAM.—For new drain, for the Driffield Rural District Council:—

T. Cammidge* £265

RAMSEY MERESIDE.—For erection of teachers' house, for the Hunts Education Committee:—

Allen & Son* £435 10

RHYL.—For erection of landing jetty, for Rhyl Urban District Council:—

Pickersgill, Rhyl* £224 5 4

RUSTINGTON.—For construction of wave screen, etc., for the Metropolitan Asylums Board:—

Playfair & Toole	£1,275 0 0	W. Swales, Holmelea, The Green, Southwick, Sussex*	£640 2 6
F. Bevis, Ltd.	800 0 0		
G. Munday & Sons	756 0 0		

[The Consulting Engineer's estimate was £800.]

ST. ALBANS.—For extension of Herts County Museum, for Executive Committee:—

Salisbury, Harpenden,* £816, for shell of building; and £150 for a gallery to one of the added rooms.

WALSALL.—For new stores, for the Walsall Town Council:—

Wootton, Walsall* £1,050

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